

STATE OF CALIFORNIA – THE RESOURCES AGENCY
 BEFORE THE
 CALIFORNIA ENERGY COMMISSION (CEC)

In the matter of,)
) Docket No. 12-EBP-1
 Draft Action Plan)
 _____)

Draft Action Plan for the
 Comprehensive Energy Efficiency Program
 for Existing Buildings

Nonresidential Voluntary Pathways
 and Mandatory Approaches

UCLA Campus
 James West Alumni Center
 325 Westwood Plaza
 Los Angeles, California

Friday, June 28, 2013

9:18 A.M.

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1

1 P R O C E E D I N G S

2 JUNE 28, 2013

9:18 A.M.

3 MR. ASHUCKIAN: Okay, thank you for coming. Can
4 everybody hear me? Is that better? All right.

5 Good morning, thank you for coming. I'm Dave
6 Ashuckian. I'm the Deputy Director for the Division of
7 Energy Efficiency and Renewable Energy at the California
8 Energy Commission. And I want to welcome you to day
9 three of our AB 758 Existing Building Energy Efficiency
10 Workshops.

11 Today we are going to talk about the
12 nonresidential sector.

13 On Monday we were in San Francisco, where we
14 talked about data reporting, the foundational marketing,
15 education and outreach, workforce resources, and
16 financing mechanisms.

17 On Tuesday we were in Fresno, where we talked
18 about residential upgrades, energy efficiency,
19 evaluation and property value, mandatory ratings and
20 basic upgrades, and the standards and compliance
21 enforcement.

22 Today we're going to talk about the nonres
23 standardization tools, small and medium commercial
24 building upgrades, public sector leadership, mandatory
25 programs statewide for disclosure in the largest

1 commercial buildings and public sector.

2 At the end of the day we are going to have a
3 period of time where you can talk about any agenda items
4 that we've talked about all week long, anything about
5 the report at all.

6 So, you'll have an opportunity at the end of the
7 day to talk about maybe things that you may have missed
8 during the first two workshops.

9 We are recording. The workshop's on WebEx and
10 we are also recording it with our court reporter. So,
11 when you speak comments we would like you to provide
12 your name and affiliation, and provide a business card
13 to the court reporter so that she can get the proper
14 spelling for you name.

15 We will have an overview. Let me give you kind
16 of a generalization of the next steps of the Action
17 Plan.

18 So, we have the draft plan. We're going to be
19 taking comments and written comments, and we would
20 appreciate those by July 12th.

21 And even if you provide some verbal comments if
22 you want to back those up with written comments that
23 would be appreciated.

24 We may or may not hold a second workshop with
25 the comments that we receive from these workshops. So,

1 if we receive some extensive comments that we think
2 warrant some significant changes, we may hold a second
3 workshop on the changes to the draft.

4 If there are not significant changes to the
5 draft, we will go forward with a final draft and then
6 the Commission will adopt it in early fall. If we hold
7 a workshop, it probably will delay the adoption of the
8 actual Action Plan.

9 Just some housekeeping points, the rest rooms
10 are outside here, around the corner.

11 When we break for lunch there is a student --
12 what is it called, sorry. The student union, the
13 Ackerman, a student union across the breezeway here and
14 there's, I guess, a food court that has lots of dining
15 options.

16 And UCLA staff have also encouraged you to feel
17 free to shop and buy some souvenirs to support the
18 Bruins.

19 (Laughter)

20 MR. ASHUCKIAN: With that I'll turn it over to
21 our Chair, Chair Weisenmiller.

22 CHAIRPERSON WEISENMILLER: Good morning. Thank
23 everyone for being here. This is obviously a very
24 important topic for California.

25 I think when you look at, you know, one of the

1 primary challenges of our time is dealing with climate
2 change. And, certainly, the secondary issue in
3 California is dealing with the economy, certainly
4 recovering from the great recession of 2008.

5 And so when you look at what we need to do to
6 deal with climate change, we have to reduce our
7 greenhouse gas emissions, which means reducing our
8 energy consumption.

9 And a key part of that is looking at existing
10 buildings. And we really need to have a program that
11 deals with the existing buildings, particularly the
12 rented portion, and a way of getting to deep retrofits.

13 And those deep retrofits I believe will provide
14 the needed jobs for many Californians.

15 So, anyway, this is a very important topic.
16 That's why I'm here today and certainly here to listen
17 to your input.

18 COMMISSIONER MC ALLISTER: Thanks, Chair
19 Weisenmiller.

20 My name is Andrew McAllister. I'm a
21 Commissioner at the Energy Commission and, in fact, Lead
22 Commissioner on Energy Efficiency.

23 I've been having a great time this week.
24 Really, and I say that completely un-ironically. That
25 we're hitting some meaty topics and there are a lot of

1 people interested in those topics.

2 The challenge is a big one to get more people to
3 pull the trigger on projects to improve the performance
4 of their homes and businesses.

5 But it is also an area of really immense, truly
6 immense opportunity. And as the Chair said, job
7 creation, economic growth, as well as a whole bevy of
8 other, you can call them non-energy benefits. You know,
9 comfort, health improvements, inoculating ourselves
10 against future energy issues.

11 In this part of the world providing some
12 resilience to the electricity system now that we know
13 San Onofre's off and we are seeing increasing impacts of
14 climate change that are definitely going to impact our
15 electric grid.

16 So, for any number of reasons, improving the
17 performance and the energy efficiency of our existing
18 building stock is hugely important. It's not going to
19 happen overnight. We need to have the right structures
20 in place, the right programs, and policies, and funding
21 streams, training and education, marketing and outreach,
22 all of the things that are going to help that
23 transaction take place.

24 Because at the end of the day it's not the
25 Energy Commission, or the PUC, or the CAISO, or any of

1 the State agencies that are going to make this happen,
2 it's going to be the marketplace.

3 So, so that the marketplace can function and
4 provide these services, and develop value propositions
5 for building owners that those building owners want to
6 avail themselves of, make the sale, we really need --
7 we've got a lot of work to do to kind of align all of
8 the messaging, and get people educated, and up to speed,
9 and seeing the value of this.

10 And so we're making good progress. The
11 indicators are heading in the right direction, but we
12 really need scale. We really need to get the scale up.
13 And so we've been talking all week about different
14 aspects of this endeavor.

15 And today I think, you know, we're hitting four
16 very key topics. You know, part of it is informational.
17 We need tools, we need good assessments, we need to be
18 communicating the right things and that lets us do that.

19 We're also targeting small and medium commercial
20 buildings which are, you know, a perennial -- very
21 diverse and perennial kind of hard to reach, so-called
22 hard to reach sectors.

23 And so how we get in there and, you know, with
24 California we have incredible diversity of business
25 owners, we have language issues. We have, you know, in

1 one low-rise commercial center you've got 20 different
2 cultures, languages, business types.

3 But there are some commonalities. The roof, you
4 know, maybe the HVAC system, maybe the lighting and
5 we've got to figure out effective ways to get in those
6 places and to get the operators and owners of those
7 buildings to see the value and invest, and help them to
8 invest and contribute to that.

9 So, really looking forward to your viewpoint on
10 that, among all the other issues we're dealing with. I
11 think you've got a lot of expertise, much more than I
12 have for sure, and much more probably than any one
13 person in this room or otherwise.

14 So, collectively, I think we do know a lot and
15 we need to align, get all that knowledge and help form
16 programs that work.

17 Disclosure -- well, public sector leadership I
18 think is also a really key area, so I'm glad we're
19 talking about that. There's a lot that can be done with
20 public buildings.

21 And if we're going to ask the marketplace to do
22 this, we need to walk the walk, as well. So that's up
23 and down the food chain. It's from the State on down to
24 the local governments, and the schools and everybody
25 else.

1 And then sort of in the final section of the
2 report, or the Draft Action Plan there are some
3 mandatory measures that we're proposing to examine,
4 mainly around disclosure. And so I think, you know,
5 we're seeing in New York and other places where
6 disclosure in larger buildings can really have a market
7 impact right off the bat, and we want to explore doing
8 that in California.

9 We're getting a lot of information that that can
10 work and that it actually can be a very positive thing,
11 and we just want to shape it so that it pushes things in
12 the right direction.

13 So, anyway, don't want to get ahead of
14 ourselves. We're not that deep into the agenda, yet.

15 But I want to just thank everybody for coming,
16 and on the web as well, those of you who are attending
17 remotely.

18 And just express my enthusiasm for where we're
19 headed with this.

20 And thank staff. Christine Collopy here, in the
21 first row, has really marshaled this, herded a lot of
22 cats in this process.

23 And we've got Martha Brook on the panel today.
24 And all of the staff working on this are in Dave's shop
25 and I think they've really stepped up to the plate and

1 spent a lot of -- put a lot of sweat equity into this.

2 And, certainly, we're at a kind of a moment, a
3 milestone moment on it where we have the public product
4 that we're working through, but this is really the start
5 of the process more than the end of the process because
6 we really need market engagement.

7 We need engagement from knowledgeable
8 stakeholders like all of you in the room, and to really
9 make sure that as time goes on that we implement, in
10 their different break out activities, and different
11 lines of programs, and financing, and all the other
12 activities that we're contemplating, that we keep paying
13 attention. That we monitor. That we have some rigor
14 associated with and some accountability associated with
15 these activities so we can flexibly, and relatively
16 quickly adjust as needed. Because we know we're going
17 to have to do that, that's the nature of the
18 marketplace.

19 So, really trying to keep our eyes and ears open
20 going forward, and that's all of us, including us at the
21 Commission.

22 Also, very happy to have Simon Baker at the
23 Public Utilities Commission here with us, he's been a
24 stalwart all week.

25 And, really, this activity is really, I think, a

1 great opportunity and just being the right thing to do,
2 and I think will get us better results if we collaborate
3 across agencies. And we're really trying to do that
4 more and more.

5 And the overall Energy Efficiency Strategic Plan
6 that the State has, that originally was developed
7 largely over at the PUC, and we're trying to move that
8 together in a much more joint agency activity in the
9 next update. And this Action Plan development and
10 implementation is really a fundamental part of that.

11 And I'm really -- I think that keeping us all
12 aligned really will improve the output, the outcome of
13 all of this and I'm really happy to have the PUC
14 collaborating so extensively with us. And, you know, I
15 think we're -- that cross-collaboration really helps
16 both agencies.

17 And certainly, I know the Energy Commission,
18 we're learning a lot from that collaboration, as well,
19 so only going to get better with time.

20 With that I'll pass the mic to Simon for some
21 intro comments.

22 MR. BAKER: Thank you very much, Andrew. Yeah,
23 it has been a really great experience for us, at the
24 PUC, to be participating in this whole process since
25 2010.

1 And, you know, in many ways I personally have a
2 great deal of sympathy for the Energy Commission and the
3 immense task that's been given to it by the Legislature.

4 Are you hearing me on the mic? Okay, I'll get a
5 little bit closer.

6 This is a challenge that we've been trying to
7 tackle for decades now is to get after the energy
8 efficiency potential locked up in existing buildings.

9 The utilities have been funding a variety of
10 programs, incentives, technical assistance, audits,
11 education, outreach, what have you, for decades.

12 And yet we know that there is a vast amount of
13 untapped potential that's still out there, which is an
14 indicator that there is a lot of room for improvement.

15 So, you know, I see this as an opportunity for
16 us to review the efforts that we've already made, the
17 strategies that we've already been implementing, and see
18 how those are working, and how those could be tweaked or
19 modified to get better results.

20 And it's an opportunity to think outside the box
21 and look at sort of new ways to get after this
22 potential.

23 And I think that's really where -- both of those
24 themes are where this group and the broader array of
25 market actors and stakeholders, where that really comes

1 into play.

2 We're looking for the perspectives of the people
3 that are on the ground trying to make energy efficiency
4 happen in the State of California.

5 And oftentimes we, at the agency level, are too
6 far removed from what's actually happening out there in
7 the marketplace. So, this is a really great opportunity
8 for us to hear from you and get ideas from you.

9 So, as I said, we've been collaborating with the
10 Energy Commission on this effort for some time. We were
11 directed to do so in the legislation to ensure that
12 there is no overlap in existing programs, and leveraging
13 existing programs.

14 And that's important because if you look at the
15 investor-owned utilities' total portfolio of energy
16 efficiency programs, about 70 percent of that authorized
17 funding, nearly \$700 million a year, is dedicated to the
18 existing building sector.

19 Okay, so that's a combination of single-measure
20 or multi-measure approaches, but it's the lion's share
21 of the funding is going to this sector. So, we want to
22 make sure that that's being used well, it's being used
23 strategically, and we want to make sure that it's
24 aligned with the goals of this program.

25 We have been working very closely on the

1 development of this Action Plan and we've also been
2 collaborating at multiple levels between our agencies.

3 At the Commissioner level we've had quarterly
4 confabs of the lead Commissioners at the agencies, on
5 energy efficiency.

6 And we've been meeting on a weekly basis with
7 management, and technical staff have also been working
8 very closely, so it's been a positive collaboration.

9 The legislation gives the PUC specific authority
10 with regard to investigating possible financing options
11 that would be funded by utility ratepayers. And we've
12 been moving on that since 2010.

13 We did a financing study, a gap analysis, a
14 market needs assessment and we have since, in planning
15 for the current funding cycle, provided some direction
16 for continuation of certain ARRA financing programs,
17 continuing the on-bill financing program that the
18 utilities have had for some time, and contemplating new
19 statewide pilots, as well.

20 Just this week the Commission issued a proposed
21 decision to approve new financing pilots and would
22 encourage folks to look at that. There's a lot of new
23 ideas in there about how to implement financing programs
24 on a statewide basis.

25 Appreciate the words of Commissioner McAllister

1 with regards to coordinating with the Strategic Plan,
2 itself. I think the agencies, I think we see eye-to-eye
3 on the necessity for these efforts to be one in the
4 same, really.

5 AB 758 Plan, as I see it, this really is, you
6 know, becoming the -- in effect the Strategic Plan for
7 the existing building sector.

8 And if you look at the Strategic Plan and the AB
9 758 draft plan, I think you'll find a lot of alignment.
10 And so, the documents aren't talking past each other.

11 And to the extent there is any inconsistencies,
12 we certainly are committed to ironing those out in
13 future updates to the Strategic Plan, so we want to make
14 sure that these efforts are well coordinated.

15 If you look at the format and the presentation
16 of the AB 758 Plan, some of you may notice it has the
17 same look and feel, and kind of branding of the
18 Strategic Plan, and that's on purpose. We want to be
19 sending that same message that these are consistent
20 efforts.

21 And another thing I just want to emphasize is
22 that the AB 758 legislation obviously has a statewide
23 scope. And we, at the PUC, we regulate the Investor-
24 Owned Utilities who represent and provide electricity
25 service to about 70 percent of electricity customers,

1 and a little over 80 percent of the gas service, as
2 well.

3 And so the Publicly-Owned Utilities and other
4 load-serving entities, they're going to play a key role
5 and we all benefit from a coordinated statewide
6 initiative.

7 And we've seen good examples of collaborations
8 happening already. For example, LADWP recently signed
9 an agreement with SoCal Gas to collaborate on their
10 programs, and so that's a really positive development.
11 And we know that there are other examples like that out
12 there.

13 The final point that I wanted to just touch on
14 is with regard to cost effectiveness. And that's
15 because, as a practical matter, where this plan goes
16 next with regard to any impact on IOU ratepayer programs
17 is it will be coming to the PUC for consideration as the
18 Commission gives direction to the utilities for their
19 next funding cycle.

20 And when the Commission reviews the 758 Plan and
21 the implications of that plan for utility programs, it's
22 going to be looking at it from the overall perspective
23 of what's cost effective to fund from ratepayers.

24 And so just to explain a little bit about how
25 the PUC's cost-effectiveness framework works, under

1 statute the PUC has a mandate to pursue all cost-
2 effective energy efficiency as a preferred resource
3 alternative to fossil energy supply.

4 And that's energy supply that the utility would
5 otherwise procure, if not for the energy-efficiency
6 resource.

7 And so the PUC's primary cost effectiveness test
8 takes the view of what's cost beneficial to the utility
9 and to the ratepayer.

10 That's somewhat different from the Energy
11 Commission's cost effectiveness approach in its
12 Efficiency Standards Proceeding, because the Energy
13 Commission has a different statutory mandate.

14 And the Energy Commission takes the view of the
15 perspective of the homeowner, and the building owner,
16 and whether a given measure or building practice yields
17 net benefits to the end user.

18 And so those slightly different and legitimate
19 perspectives, again going back to the statutory mandate,
20 they result in some differences in terms of what the
21 overall cost effectiveness determinations are.

22 So, I just say that because the fact of the
23 matter is once this turns to the PUC's proceedings there
24 are going to be limited funds available to fund the
25 initiatives in this plan. And it will be important to

1 be thinking about sort of what is the most appropriate
2 role for ratepayer funding, and what's most strategic
3 for utility ratepayers to be funding. And what is the
4 overall strategy, kind of from a portfolio perspective.

5 One of the things that the PUC does with regard
6 to cost effectiveness is it looks at cost effectiveness
7 from a total portfolio.

8 So, an individual program or an individual
9 measure may not be cost beneficial, that's okay. As
10 long as it's funded because it's believed that it is a
11 measure that will be improving on its cost curve to
12 eventually be cost effective, or it's providing other
13 strategic market support to transform the market to get
14 overall cost-effective energy savings.

15 So, I just say that because it's important for
16 people to understand that one of the key lenses through
17 which the PUC views all things is cost effectiveness, as
18 does the Energy Commission, but that lens has a slightly
19 different tint simply because of our different
20 underlying statutory mandates.

21 So with that, thank you very much and I'm
22 looking forward to the discussion today.

23 MR. ASHUCKIAN: Thank you, Simon.

24 Now, as Simon pointed out, there is some areas
25 that we have a knowledge that are not included in the

1 Action Plan.

2 It's been a pretty big lift for staff and it's
3 been a good growth experience, but the staff of the
4 Energy Commission, their primary knowledge base has been
5 developing standards over the years, building standards,
6 appliance standards, and implementing those standards.

7 So, developing a program that affects existing
8 buildings that don't have, "that regulatory hammer"
9 instantly available has not been something that just
10 comes naturally to us.

11 There are a number of areas that, again, we need
12 additional input on, and that is program funding.
13 Again, Simon talked about ratepayer funding programs,
14 but the areas that don't or won't get ratepayer-funded
15 activity we need to look at how those programs might be
16 funded elsewhere.

17 Secondly, the multi-family programs, a very
18 light touch on the areas of multi-family in the Action
19 Plan.

20 Low-income programs, plug loads and overall cost
21 effectiveness is another area that we'd like input on.

22 And finally, what's not listed up there are
23 goals. We identified that, you know, we don't have the
24 kind of understanding of how we can identify goals that
25 ultimately the marketplace will achieve.

1 And so any input you have on how we can
2 establish goals, timelines, deadlines, et cetera would
3 be very well appreciated.

4 We do have, as far as we're going to go next to
5 some overall -- an overview of the whole Action Plan.
6 Christine Collopy will go through that.

7 And again, I just want to say that once that is
8 finished we'll have comments on that overview and then
9 move into the specific topic areas.

10 I do want to mention that we do have blue cards
11 at the front table. Those are for folks who want to
12 make sure that you have a queue in speaking.

13 We're going to -- because of the size of the
14 group we're going to keep it informal and so you do not
15 have to fill out a blue card if you want to make a
16 comment.

17 We'd ask you just to come up to the microphone
18 here and wait until you're queued, and then go ahead and
19 make your comments.

20 However, if you want to fill out your name and
21 affiliation on the blue card to give to the court
22 reporter, you can do that.

23 Or if you want to make sure that you want to
24 maybe make a comment later in the day, jot that down on
25 the blue card, give it to us and we'll make sure that

1 your comments are heard before we close.

2 And so with that I will turn it over to
3 Christine.

4 MS. COLLOPY: Great, thanks Dave. Good morning,
5 everyone. I'm Christine Collopy and I am the Project
6 Manager for AB 758.

7 And I would like to thank all of you for being
8 here today. And we are on day three of our workshops
9 where today we are focusing on the nonresidential
10 issues.

11 AB 758 was passed back in 19 -- in 2000 -- I'm
12 sorry, in 2009, by Assembly Member Nancy Skinner. This
13 bill was sponsored by our friends over at Global Green.

14 The Existing Buildings Program, this calls for a
15 comprehensive program to achieve energy savings in all
16 of California's existing buildings.

17 It's a program that embodies a portfolio of
18 different techniques, and applications, and practices to
19 improve the efficiency in these buildings.

20 The Energy Commission is called to develop this
21 program with our partners at the PUC and many other
22 State partners, State agencies, and local governments,
23 regional governments, and all of our partners out there.

24 This program, you've heard sort of theme, this
25 is really going to take a massive effort on behalf of

1 not only State agencies, but also all of the partners to
2 accomplish this massive effort.

3 It's going to take a tremendous amount of
4 coordination and above all it's going to take a lot of
5 will for us to want to coordinate, and for us to want to
6 achieve these goals together.

7 Lastly, AB 758 authorizes the Energy Commission
8 to authorize regulations.

9 The comprehensive program elements are the long-
10 term statewide approach to achieving energy efficiency
11 in existing buildings. It has to have cost-effective
12 energy efficiency improvements, public and private
13 financing, public outreach and education, greening our
14 workforce, and a broad range of energy assessments in
15 benchmarking and ratings.

16 We believe that we've hit all of these things in
17 the Action Plan, but that's why we're here today is we
18 want to hear from you on things that we perhaps missed,
19 or gaps that exist currently in this Draft Action Plan.

20 758, we've been really looking at this as three
21 different phases. And currently we're at the tail end
22 of phase one.

23 And in phase one, just giving you an overview,
24 the Energy Commission conducted the ARRA pilots from
25 2009 to 2012, and those ARRA pilots are really deemed

1 pilots for AB 758, as they do have a range of techniques
2 and applications similar to what was called out in the
3 legislation.

4 The Investor-Owned Utilities also, at the same
5 time, conducted single-family and multi-family upgrade
6 programs.

7 And the Energy Commission then released the AB
8 758 Scoping Report in the fall of 2012 and we held
9 workshops to talk about market needs.

10 This Draft Action Plan was released just a week
11 or so ago and this was the next phase in phase one.

12 And so then we're going to be moving from here
13 and finalizing this plan.

14 Just to give you a little bit of background on
15 what the Energy Commission did to with their ARRA
16 dollars in the Efficiency Division, if you look at the
17 orange boxes, those are what we call our targeted
18 commercial contracts.

19 They did refrigeration case lighting, HVAC and
20 lighting controls all up and down the State in small and
21 medium commercial buildings.

22 The financing pilots are in green and we did a
23 variety of finance programs. We did Department of
24 General Services with the State-owned Building Finance
25 Program.

1 Krimfa Homebuyers Fund offered below market
2 interest to single-family residents doing deep
3 retrofits, as well as some solar.

4 The Bay Area Multi-Family Fund conducted some
5 multi-family finance programs.

6 And then we did three commercial PACE pilots in
7 Placer County, San Francisco and L.A. County.

8 And then in Sonoma County they have a revolving
9 loan fund and we provided some contractor support to
10 that fund.

11 L.A. County we gave about \$11 million to, and
12 they have a suite of financing programs that are
13 touching all kinds of building, public, municipal,
14 single-family, multi-family. They have a large suite
15 that's going on and they're really launching now.

16 Some of these finance programs are continuing
17 beyond the ARRA period, which ended in 2012 and they go
18 through 2017, and likely beyond.

19 The blue boxes represent the Energy Upgrade
20 California Program that we launched for the single and
21 multi-family programs.

22 And the Local Government Commission Contractors
23 established a statewide infrastructure for outreach, and
24 marketing, and websites, and we had some financing
25 programs in there as well.

1 And then the City of Fresno had a HERS Rating
2 Pilot Program where they conducted over 1,000 HERS
3 ratings.

4 And then we have Local Energy Upgrade California
5 that leveraged against that statewide program in Los
6 Angeles County, San Diego County, SMUD up in Northern
7 California, and in ABAG in the Bay Area.

8 Other things we did with our ARRA Fund is we
9 invested over \$18 million into workforce training to
10 align programs and to create workforce programs up and
11 down the State.

12 And we also provided support for creation of the
13 BEARS nonresidential rating.

14 This Action Plan is divided, really, into three
15 different sort of categories. The no regrets category
16 is policy or actions that are needed to establish a
17 foundation for strategies and initiatives that will be
18 pursued under this whole comprehensive program.

19 We really look at these no regrets strategies as
20 building a strong foundation for support and to
21 streamline current energy efficiency programs and
22 markets, while ensuring that the conditions that enable
23 significant growth in energy upgrades.

24 The foundational elements are necessary in order
25 for us to touch all of the existing buildings in

1 California.

2 The no regret strategies are likely to require
3 State investment.

4 The voluntary pathways are market support
5 activities that build upon past efforts and channel
6 existing resources.

7 This plan encourages multiple pathways for
8 energy upgrades, single measures, multiple measures,
9 whole building and then even going into self-generation.

10 The potential mandatory approaches can make the
11 market more transparent and move mature measures into
12 wider use. The need for mandatory approaches will
13 depend on the result of public process to evaluate all
14 the pros and cons.

15 And if mandatory approaches are determined to be
16 desirable and feasible, the timing and specifics will
17 depend on the launching of those no regret strategies
18 and the voluntary pathways.

19 Again, no mandatory approach is going to be
20 taken until we have developed -- gone through an
21 extensive public process.

22 So, I'm just going to take you now into the
23 report, just to give you a highlight of the things we've
24 talked about during the week, and then the things we're
25 going to be talking about today.

1 So, in the no regret strategies, the data
2 reporting and management, this strategy calls for the
3 collection, organization and storage of data.

4 We really think this data needs to be acceptable
5 to all stakeholders, including the public.

6 We're providing support in no regrets 2 for
7 standards, compliance and enforcement. This strategy
8 calls for the implementation of solutions to complex
9 compliance and enforcement standards for existing
10 buildings.

11 The stakeholders, this is going to be a massive
12 effort where all the stakeholders are going to have to
13 seriously collaborate, like the CSLB, building
14 officials, departments. We're going to need to make
15 sure we do lots of education and outreach to our
16 contractors and to the public.

17 No regrets 3 is foundational marketing,
18 education and outreach. We believe that marketing,
19 education and outreach is really critical to the
20 foundation of all these programs.

21 And the motivation to both the homeowners to
22 take action, or building owners to take action, and also
23 contractors to be selling, or being the change agent as
24 we do more energy upgrades.

25 Number 4, the foundational workforce resources,

1 it's critical that we leverage our dollars and really
2 align programs so that we are making sure we have a
3 workforce that does quality installations and is
4 offering customers always the most energy efficiency
5 product or installation.

6 The voluntary pathway, we start off with the
7 residential upgrades for number 1. We're recommending
8 that we do easy -- we have to create easy access to
9 different energy upgrade pathways.

10 So, again, it's really making sure that we
11 harmonize and optimize existing offerings and require,
12 you know, solid QA and ongoing performance evaluations.

13 Voluntary pathway 2 is what we're going to be
14 talking about today, and that is the standardized
15 residential tools for benchmarking, auditing and
16 retrocommissioning, developing benchmarking approaches
17 that enable targeting of high-opportunity buildings, and
18 providing standardized tools to increase consumer
19 confidence and understanding.

20 Voluntary pathway 3, we go into upgrades for
21 small and medium commercial buildings. We're going to
22 survey a network to establish baseline energy use and
23 performance levels for the small and medium buildings,
24 and develop cost-effective energy audit tools and
25 protocols.

1 In voluntary pathway 4, for public sector
2 leadership, we are going to be working with State,
3 regional and local governments to improve the energy
4 performance of public buildings and really have them
5 being leaders for all others in the communities.

6 Voluntary pathway 5, energy efficiency and
7 property evaluation, we believe that we can reach market
8 transformation by incorporating energy efficiency
9 performance into property evaluation in the appraisal
10 process.

11 So this again will involve massive efforts to
12 work with real estate and appraisal industry partners to
13 get this put into like MSL listings, as well as into the
14 appraisal process.

15 And lastly, voluntary pathway 6 is the financing
16 upgrades. Simon just talked a little bit about this.
17 And the PUC has done a lot of work in this area. And we
18 are going to continue developing finance programs in the
19 ARRA programs, and also continue.

20 In the potential mandatory approaches, there are
21 two of them. The first potential mandatory approach is
22 the Statewide Energy Use Disclosure Program for the
23 largest commercial and public buildings. We'll be
24 talking about that today.

25 Next, we're going to look at evaluating the need

1 for and the feasibility of the Statewide Energy Use
2 Disclosure Programs.

3 These buildings will lead the way -- the
4 buildings will definitely be leading the way for others.

5 In potential mandatory approach 2, the
6 disclosure of ratings and completion of basic energy
7 upgrades, the Energy Commission does recognize the need
8 to fix the current rating system.

9 And we're definitely taking suggestions from
10 people and we are going to be talking about this under a
11 separate -- under separate efforts.

12 But this mandatory approach will evaluate the
13 need and feasibility. We're going to be conducting
14 public proceedings to develop the requirements.

15 This approach, then, will only occur after,
16 again, the no regrets and the voluntary pathways have
17 matured and extensive stakeholder engagement will occur.

18 Dave mentioned before that the Energy
19 Commission, we have identified some gaps in our Action
20 Plan and those are related to program funding, multi-
21 family programs, low-income programs, plug loads and
22 cost effectiveness.

23 So, we will be working on those gaps. And we'd
24 like to hear from you if we've missed anything or if
25 anything in there is like stated incorrectly.

1 The next phase is the implementation phase, so
2 that's sort of where we're going after this. So, the
3 implementation phase is really the continue partnership
4 development and implement strategies, address market
5 gaps and imbalances, coordinate, optimize and streamline
6 existing programs, leveraging and combining programs to
7 eliminate duplicative efforts.

8 We are going to make sure we're aligning with
9 the PUC's Strategic Plan, the EPIC Plan, and then all
10 the work that goes on in the Energy Commission's
11 Research, Development and Demonstration Division, which
12 was the old PIER Division.

13 We're going to make sure we're identifying all
14 the program gaps to make it possible to touch all
15 existing buildings. That includes a plan that includes
16 all sectors, building types, vintages, and climate
17 zones.

18 The ultimate goal is that we are counting all of
19 the energy that is saved in our buildings.

20 In phase two, these are the partners that we are
21 going to be working with. Again, it's going to take an
22 enormous amount of collaboration and engagement with our
23 stakeholders to be able to create the statewide program
24 and transform markets.

25 Lastly, in phase three, this again is the

1 potential mandatory requirements. We identify three
2 areas where there may be potential regulations
3 developed. And before these mandatory approaches are
4 considered, again, the no regrets and voluntary markets
5 must reach some sufficient level of maturity.

6 We need to determine the appropriate metrics to
7 track over time to understand where we are in the
8 market.

9 And lastly, the mandatory requirements, once
10 again, will only be once we have a lot of stakeholder
11 engagement and discussion.

12 So, these are the three public potential
13 mandatory requirements. It's to publicly disclose
14 energy use for the largest commercial and public
15 buildings, disclose energy performance ratings, and
16 complete basic level energy efficiency upgrades.

17 We will be having an oversight committee for
18 this program. We are interested in hearing from you on
19 what that might look like. But there will be a group
20 that's made up of like key policymakers, State agencies,
21 local implementers, regional leaders, legislative
22 leaders, et cetera.

23 We want to -- this group would meet periodically
24 and provide oversight for the program.

25 So, the next slide is really talking about those

1 next steps. These are for your input. The Draft Action
2 Plan workshop, this is the final one today. The public
3 comment period ends on July 12th, at 4:00 p.m.

4 Please make comments. There is a notice online,
5 with details on how to provide comments and we'd like to
6 hear from you.

7 The revised Draft Action Plan will come out
8 later this summer and we may, potentially, be
9 workshopping any gaps if we receive a lot of them, and
10 the final workshop -- the final Action Plan we may also
11 workshop.

12 We're looking to adopt the Action Plan in the
13 fall of 2013. And that will, of course, depend if
14 there's any more workshops.

15 And at this time, if there are any comments or
16 questions we can take them. And there's a microphone
17 just standing here, if you'd like to come up.

18 None. Anything on the web?

19 Oh, yes, and remember to state your name and if
20 you have a business card, please give it to the court
21 reporter.

22 MR. LANGSTON: Good morning. My name is Don
23 Langston. I'm the President of Aire Rite Air
24 Conditioning and Refrigeration, and Vice-Chairman of the
25 Air Conditioning Contractors of America, and I sit on

1 the Executive Committee for the Western HVAC Performance
2 Alliance.

3 So, first of all thank you for allowing us
4 within the, hopefully, part of the solution to all get
5 involved here and get engaged in a collaborative effort.

6 So, my questions are just real simple right now,
7 as we're going through the day. So, just going through
8 this we're -- I really like what I'm seeing so far, this
9 is great.

10 We already -- my business does a lot of this
11 type of work already, so it's right up what we do and it
12 has a lot of benefits to our commercial customers.

13 So, where does AB 1103 fit into this?

14 MS. COLLOPY: Did you want to -- 1103, does
15 somebody want to take that interaction?

16 We can't hear you?

17 MR. LANGSTON: Well, Dave, let me do this. Let
18 me just -- I'll queue up a couple of questions and then
19 I'll sit down. But I just figured that, you know, what
20 I'm hearing this kind of ties back into that, and that
21 was something I've been preparing for, for several
22 years. It keeps getting pushed back and I know it got
23 pushed back again.

24 So, but that's one question. And the other is
25 just right now you've mentioned, you know, what -- you

1 know, small and medium buildings, and then large
2 buildings.

3 So, just a better idea of what those are because
4 there's a huge portfolio difference in small/medium
5 versus large buildings, which I'm assuming are Class A
6 buildings.

7 So, those are just my questions for now, thank
8 you.

9 MS. COLLOPY: Great. 1103, Dave, you're going
10 to take and maybe Mark.

11 MR. ASHUCKIAN: So, yeah, I would just say that
12 as of Monday 1103 actually kicks into effect. There are
13 challenges with using the Energy Pro portfolio.

14 MR. REGNIER: So, we had some technical issues
15 with the EPA so we had to set it back.

16 MR. ASHUCKIAN: So, let me just do a little bit
17 of clarification here. The actual regulation kicks in
18 July 1st. The "enforcement" of the regulation kicks in
19 September 1st. We could not actually delay the change,
20 the date of the implementation without a completely new
21 rulemaking. And so, we are not enforcing that
22 regulation until September 1st.

23 Now, as far as how does that fit in? I see that
24 as kind of the first step in getting comfortable with
25 disclosure. We see that as kind of a pilot to see,

1 okay, now you're going to be disclosures when you sell
2 buildings. Ultimately, we want to get people
3 comfortable with that and then, ultimately, we would
4 have a situation where all buildings would disclose
5 their energy use, even if they're not being sold.

6 MS. BROOK: Can you hear me okay? This is
7 Martha Brook. And I guess I would just add onto that.

8 And, hopefully, if we have time today we'll be
9 able to talk more about nonresidential ratings because
10 it was sort of bundled with residential ratings and
11 talked about on Tuesday. But we really, if we have
12 time, would love to talk about it more today in terms of
13 nonresidential rating and disclosure.

14 I guess my opinion about 1103 is that it's a
15 really great start in terms of energy use disclosure,
16 but there's also a role to play for asset ratings in
17 commercial buildings, in terms of really understanding
18 property assessment and not -- and that's different than
19 an energy use disclosure.

20 So, we can talk about that at the end of the
21 day, if there's time.

22 And then in terms of your question about small
23 and medium commercial buildings, we don't have a black
24 and white definition.

25 When we talk about small and medium commercial,

1 we really mean not large, right. So, it's the vast
2 majority, over 80 percent of the buildings in California
3 and more than half of the energy use from these small
4 and medium commercial buildings.

5 MS. COLLOPY: Thank you. Is there any other
6 questions in the room?

7 MR. ASHUCKIAN: We also have a blue card from
8 Bruce Ray, from Johns Manville.

9 MR. RAY: Thank you. I'll have some comments,
10 some substantive comments later. But maybe just one
11 comment on the partners in the program. I would hope
12 that you would include building product manufacturers.

13 I know that Johns Manville, as an example, we're
14 essentially an energy efficiency products manufacturing
15 company. We're headquartered in Denver, but we do have
16 operations, some manufacturing operations here in L.A.,
17 and then also up in Glenn County, north of Sacramento,
18 making primarily building envelope insulation and other
19 building materials.

20 And I think it's important to point out for you
21 that we do a lot of product development around new
22 products for retrofit, both for residential, as well as
23 commercial. And not only new products, but applications
24 for existing products and product refinement so that we
25 can make them easier and more cost effective to help

1 retrofit, and make building envelopes more energy
2 efficient, and that's both for residential and
3 commercial. Thank you.

4 MS. COLLOPY: Thank you.

5 Were there any other comments or questions in
6 the room? David?

7 And feel free just to come up to the mic if you
8 want to speak.

9 MR. COHEN: Hi, David Cohen from the Energy
10 Coalition. I had two things that I just wanted to
11 mention because I was there Monday. I read the entire
12 report.

13 And there were two aspects of that I felt, I've
14 been attending other workshops on, that I believe are
15 relative at the CPUC and IOU sector that have not been
16 mentioned, I believe, in the report.

17 And the other one -- the first one is water
18 efficiency and how that is integrated with the embedded
19 energy savings. And the IOUs and the CPUC are currently
20 figuring out how to quantify the KWH savings.

21 So, I believe if we include water efficiency in
22 the plan then that would escalate up the food chain to
23 actually accountable KWH.

24 The second one is the workshops that I just
25 attended in San Francisco that have to do with the

1 behavior programs, and how behavior is actually part of
2 the IOU portfolios in the current 2013-2014 portfolio.
3 And there was a lot of social science discussions going
4 on in San Francisco over the last two days about how do
5 you create programs and then track the trickle down
6 effects from people doing energy efficiency that's not
7 necessarily regulated by the IOUs.

8 And I feel because you're -- because the CEC's
9 cost-effectiveness requirements are maybe a little less
10 stringent than the CPUC's I think it's a really good
11 opportunity to possibly use some of the AB 758 design to
12 actually look at behavior change programs and possibly
13 even come up with some answers that had been questioned
14 at these workshops. Thanks.

15 MS. COLLOPY: Thanks, David.

16 MR. JOHNSON: Hi, my name's Scott Johnson. I'm
17 the Technical Director for National Comfort Institute in
18 Southern California.

19 And, hopefully, as we're going through the
20 process and talking this through can we -- and I didn't
21 see anything in there, but it's all about the emerging
22 technologies. The instrumentation manufacturers and
23 tools, you know, I'm running a lot of pilots and really
24 looking at instrumentation.

25 And as far as, you know, specifically HVAC and

1 pressure mapping a commercial building, the -- the
2 sensors that are out there, that we're testing with
3 right now, we can really, really, really nail down the
4 three mass fluid flows, and the refrigeration cycle, the
5 outdoor air flow and the indoor air flow. We really get
6 a really, really tight, you know, being able to balance
7 out the refrigeration cycle and moving the heat.

8 But typically, there's so much lag time in
9 trying to figure out exactly what's going on with the
10 other two mass fluid flows.

11 But we're seeing out in the field that we're
12 really matching up. You know, these three mass fluid
13 flows we've always had a lot of trouble with.

14 So as we're going through this, if we could just
15 start thinking about the instrumentation, itself, the
16 new communication devices, especially with the ZigBee
17 technology, and then also, too, the pressure mapping.

18 So, I think there's things going on right now
19 out in the field that we really need to pay attention
20 to. And I just hope that as we're walking through this
21 we really pay attention to what the advanced technicians
22 out there are actually capable of doing.

23 MS. BROOK: So are you asking for us to consider
24 establishing protocols that would align with the work
25 that you're doing or just to recognize that that work is

1 going on out there, and we need to leverage it, and
2 support it, and in --

3 MR. JOHNSON: Especially with the Southern
4 California, you know, with our commercial HVAC programs,
5 and working with the manufacturers, and being out in the
6 field and training advanced contractors and technicians
7 on being able to do this.

8 MS. BROOK: Okay.

9 MR. JOHNSON: So, we're active in the field
10 right now. I'm just hoping for some kind of overlap so
11 we can get a quick feedback with what's going on here
12 to, you know, bring you guys up to speed.

13 COMMISSIONER MC ALLISTER: So, I guess I would,
14 you know, really sort of -- that's fantastic to hear
15 and, really, as much as you can sort of articulate and
16 put on the record it really helps us sort of get that
17 into the --

18 MR. JOHNSON: Have we got a couple weeks?

19 COMMISSIONER MC ALLISTER: Oh, yeah, you got
20 until July 12th, I think is the date.

21 MS. COLLOPY: Two weeks.

22 MR. JOHNSON: From now on? Right now?

23 COMMISSIONER MC ALLISTER: Yeah.

24 (Laughter)

25 COMMISSIONER MC ALLISTER: Not right now. Not

1 right now. No charts and graphs necessary right now.

2 But I guess -- but think about it in terms of --
3 just building on what Martha said, think about it in
4 terms of what kind of program support you would need to
5 take -- to develop more knowledge there and then move
6 that into some targeted initiative that might actually
7 help get a project done, to get at single-loop flow, you
8 know, to use variable speed technology to sort of -- you
9 know, what you know what the pressure mapping looks
10 like, what does that mean for the actual systems that
11 are out there in the world and what improvements you
12 could put in place.

13 MR. JOHNSON: You know, the pressure -- just
14 real quick, the pressure mapping sequence and the
15 protocols and procedures have been out there for so
16 long, you know, when we're fire mapping a building, you
17 know, for fire, interiors, and direction and pressure
18 pathways.

19 So, it's not that it's not been out there but
20 it's never been actually put out in such a methodology
21 that a contractor or a technician could actually follow
22 up on. Usually, it's high-end, air balancing,
23 supervisory type individuals.

24 But the processes and procedures are pretty
25 easy. So, I hope we don't really miss this because this

1 is huge. This is huge, I mean, you know, a hole and a
2 pressure difference.

3 MS. BROOK: Right.

4 MR. JOHNSON: And especially in commercial
5 application and restaurants, primarily, it's just a huge
6 opportunity.

7 MS. BROOK: Right.

8 MR. JOHNSON: So, anyway, hopefully we can talk
9 about the --

10 MS. BROOK: And file your comments, it would be
11 greatly appreciated.

12 MR. JOHNSON: Written?

13 MS. COLLOPY: Yes.

14 MS. BROOK: Right.

15 MR. JOHNSON: Got it.

16 COMMISSIONER MC ALLISTER: I know that's
17 challenging sometimes.

18 MS. BROOK: Maybe you could ask somebody to help
19 you with that part.

20 MR. JOHNSON: Yeah.

21 MS. NEFF: That's a hard act to follow. My name
22 is Sara Neff. I am the Vice-President of Sustainability
23 at Kilgore Realty. We own 13 and a half million square
24 feet between San Diego and Seattle, the great bulk of
25 which is in California. And sustainability is,

1 obviously, what I do all day long, and the bulk of that
2 is energy efficiency.

3 I just wanted to say that as far as gap analysis
4 goes one of the things I would love to see is active
5 inclusion of my engineering union. I would really love
6 to be able to compensate my engineers based on their
7 energy efficiency gains they make in the buildings, but
8 I'm not currently able to do so.

9 And what I've seen is really it comes --
10 ultimately, you can put a lot of money into lighting
11 retrofits, VFDs, HVAC improvements, window foam, but the
12 biggest bang for a buck is really just a very motivated
13 building engineers.

14 And I have some really great engineers who
15 really care about energy efficiency and some engineers
16 who don't as much. And I can't incentivize financially
17 those who are, would really love to be able to do that.

18 I've seen great savings from good engineers.
19 So, we can talk more about financing structures later
20 and how I think legal fees really are something that
21 isn't addressed, but we can come up with that later.
22 But, yeah, engineering unions would be great.

23 MS. COLLOPY: Thank you.

24 CHAIRPERSON WEISENMILLER: Great, just a couple
25 of follow-up questions. Thank you for being here.

1 I'm just trying to understand, in terms of for
2 your buildings in aggregate, roughly how often do the
3 leases turn over and how often do you sell the
4 buildings, roughly.

5 We don't sell buildings very often. We're not a
6 merchant builder so we own and operate all of our
7 buildings.

8 So, yeah, leases turn over about every five
9 years. Some leases are longer. Yeah, I mean we sold
10 most of our industrial portfolio last year, but that's
11 sort of a strategic shift, but we rarely sell buildings,
12 so we hold for a long time.

13 CHAIRPERSON WEISENMILLER: Yeah, so you would
14 expect typically that's 10, 20, 30 years?

15 MS. NEFF: For holding or longer.

16 CHAIRPERSON WEISENMILLER: Yeah, or longer,
17 okay.

18 MS. NEFF: Yeah, we've been a real estate
19 investor in terms of 65 years at this point so --

20 CHAIRPERSON WEISENMILLER: Okay, great. Thanks.

21 MS. COLLOPY: Are there any other folks in the
22 room that would like to make any comments before we kick
23 off other presentations?

24 COMMISSIONER MC ALLISTER: Actually, I wanted to
25 make a couple of comments. Just so, you know, we've

1 talked a little bit about gaps. And just to make those
2 asks from us a little more concrete, you know, I don't
3 think we're -- on cost effectiveness, for example, I
4 don't think -- you know, some folks in the room may have
5 very specialized knowledge, one of the commenters I
6 think does, about cost effectiveness.

7 You know, PG&E and some of the utilities
8 obviously get that, you know, Simon is fully fluent.
9 But it's not necessarily a conversation that can or
10 should sort of be something that most of the
11 stakeholders here get too deeply involved in.

12 And it's really kind of an agency issue to sort
13 of, you know, hammer out what our -- what things fit in
14 the ratepayer bucket and what things don't, and so we
15 kind of need to have that discussion.

16 And what I guess I would ask of you is to see
17 where you see gaps overall in, okay, we could use some
18 resources to do this or that. You know, maybe it's
19 training workforce, maybe it's product development
20 assistance, maybe it's -- you know, resources that sort
21 of would be helpful to move the marketplace along and
22 help it to mature and wrestle with some of these
23 relatively difficult issues.

24 And then sort of the profile of that and the
25 resource needs would either fit or not in the ratepayer

1 bucket. And if not, then the new challenge would be
2 going and finding some resources for those things.

3 And so, we've tried to call some of those out in
4 the Action Plan but, really, you know, the best ideas,
5 we want those to bubble up and so that we can really
6 prioritize and go out and figure out how to wrestle with
7 the issue of trying to -- trying to figure out how to
8 get some activity there and who might fund it.

9 And, you know, if it's really important then if
10 a relatively mature industry can kind of step up and
11 help, that's going to be very welcome.

12 Because there are limited resources, there is no
13 identification in the legislation, AB 758, itself, of
14 any additional resources.

15 So, one thing I think we didn't say in the intro
16 is that the timing of this really is meant to be -- get
17 to the final Action Plan for AB 758 in time for the PUC
18 to pick it up and incorporate it into its portfolio
19 development for the '15 to '17 energy efficiency cycle.

20 So, the timing here is very intentional and,
21 hopefully, we can put this to bed and get it sort of --
22 and tried and adopted. And then, you know, certainly it
23 will be a living document and it will be changing going
24 forward.

25 But get, you know, high level direction into the

1 development processes for the investor-owned utilities
2 and for the publicly-owned utilities so we can kind of
3 get it moving forward in a practical way.

4 So, you know, it's not that I think we're asking
5 for new ways to assess cost effectiveness, it's really
6 things that are necessary for the marketplace and then
7 we can kind of figure out how to fund them, and how we
8 need to go to bat, and sort of what resources are out
9 there.

10 Because, you know, in some ways there are a lot
11 of resources out there, but in other ways they're
12 limited use, they're constrained and so we have to kind
13 of figure that out.

14 And similarly, on oversight we certainly need
15 some kind of oversight body or structure, you know,
16 reporting up to the Legislature at the very highest
17 level.

18 But also we need -- you know, there are a lot of
19 working groups. You know, there's some good efforts
20 going on under the Strategic Plan right now, and
21 wrestling with particular issues. There's a robust
22 discussion on behavior.

23 I might get some water, actually.

24 But what -- so that that topical oversight has
25 to happen where we've got -- the legislation actually

1 says that we have to report up to the Legislature,
2 there's a citizen's oversight body.

3 I'm sorry, that's getting my legislation
4 confused. There's a -- 758 does, you know, contemplate
5 regular reporting. In that every two years, in the
6 Integrated Energy Policy Report, we have to give an
7 update, so there's some top level structure there.

8 We certainly want to be responsive to the
9 Legislature and tell them what's going on. But many of
10 the issues in the Action Plan are going to require
11 topical knowledge and involve industry members, and we
12 want to make sure that we've got that covered without
13 duplicating.

14 So, where can existing efforts just feed the
15 Action Plan or new efforts are required, and whether
16 there's sort of a new need, and I think that's really
17 important.

18 And then to the point on behavior, it's very,
19 very well taken. I think that while we haven't called
20 it out specifically in the Action Plan, we might
21 actually do that. I think it would be helpful.

22 But again, if something's already going on in
23 the utility portfolios, or kind of independently then we
24 can -- you know, it fits kind of within the portfolio
25 efforts.

1 So, I think really where I think that could be
2 inserted is the final chapter, where it's pretty minimal
3 right now, and we're talking about learning, and how we
4 can make sure that we continue to understand the
5 marketplace as it evolves, and focus on the important
6 things. And, certainly, behavior and programs that
7 influence behavior are one of those areas.

8 But they could go anywhere in the document. I'm
9 really open to everybody's comments and feedback on it.
10 So, just trying to make a -- not put the weight of the
11 world on you all's shoulders, but just to kind of -- if
12 you have sort of questions about what's useful feedback
13 for us, you know, you have limited -- we know you all
14 have limited time and your ideas are -- the ideas,
15 themselves, are the most important.

16 And so, you know, if you need feedback to target
17 your ideas then, certainly, talk to Christine, Dave, or
18 one of us.

19 MS. COLLOPY: Thank you.

20 MR. OKADA: Hi, Derek Okada from the Southern
21 California Edison's Demand Side Management, Strategy and
22 Compliance area.

23 MS. COLLOPY: Good morning.

24 MR. OKADA: I wanted to follow up on
25 Commissioner McAllister's comments about behavior, and

1 maybe plug loads, and some of the other gaps.

2 Coming from the behavior workshop just a few
3 days ago, one of the -- there's a lot of support for
4 innovation, piloting new ideas. But quite frankly, I
5 think on the utility side what the challenge is, is that
6 the cost factors, measures, and taking into account what
7 Simon said, you know, there's a limitation of
8 innovation. Because while we need to be cost effective
9 at a portfolio level, at a sector or program level
10 there's still restrictions to invest in areas if the
11 savings are not going to be protected on the back end
12 for innovation.

13 And so one of the -- one of the questions I
14 asked for division ratepayer advocates and for NRDC is
15 where would you like to see these innovative ideas
16 funded? How? Emerging technologies programs, is that
17 the best suit?

18 Or in programs the challenge is has that put a
19 drag on the program cost effectiveness.

20 So, one of the asks of that workshop was a
21 loading order or privatization. So, I think the top
22 level strategies are important, but we do need a little
23 more prescriptive input.

24 Because there's a lot of solutions out in the
25 market, but the utilities as the kind of go between are

1 limited in implementing them without directives in terms
2 of prioritization of those areas.

3 COMMISSIONER MC ALLISTER: So that's really
4 helpful and I totally agree. I mean I've done quite a
5 bit of research on my own on behavior, and sort of
6 quantifying it is difficult. And, certainly,
7 attributing savings from it is difficult.

8 And, you know, I think we have an opportunity
9 here to establish metrics that are over-arching kind of
10 market metrics. And there's a data discussion that
11 needs -- you know, we've got to get to some reasonable
12 conclusion of the data discussion, as well. Like, what
13 metrics and what underlying information we're going to
14 have access to longitudinally so we can actually track
15 the baselines independent of programs, and see what kind
16 of progress we're making as a State at the macro and
17 regional levels, right.

18 So, I don't know if, Simon, you want to comment
19 on that as well, because the EM&V kind of issues really
20 do make it difficult to parse all these, you know,
21 fairly radically different kinds of programs.

22 MR. OKADA: If I could just add one thing before
23 that, too, and it has implications on both plug load and
24 meter into ZNE. So, once we get the building built,
25 right, the people that go into it then upset the

1 solution.

2 So, these are important areas, but it's hard to
3 get the innovation, you know, out there.

4 MR. BAKER: Yeah, I just appreciate the
5 comments. I just want to make one note. We have one
6 behavior program, really, that's been operating
7 primarily through the utility programs now, and it's the
8 Power Home Energy Reports.

9 And from an evaluation perspective, the approach
10 that we're taking there is, and from a savings claim
11 perspective, is not the typical approach where the
12 utility has sort of pre-approved values, so-called, ex-
13 ante values that they can claim as the savings are
14 accrued.

15 The approach it's taken for this behavior pilot
16 is what's called an ex-post approach. So, the savings
17 claims don't get to be made until after the program has
18 actually been evaluated to make some after-the-fact
19 determination about what the savings actually were.

20 And so that's kind of a new approach. It's one
21 that the utilities don't typically relish. They like to
22 be able to count savings along the way.

23 And so, you know, but it's a tool in the
24 toolkit. So, anytime you have these new, innovative
25 technologies, these new approaches they rightly need to

1 be studied to see what the savings actually are that can
2 be gotten from them.

3 But we're well aware that there's a flood of new
4 technologies and good ideas that are out there, and it
5 is a challenge to be able to sort through those and to
6 prioritize those.

7 So, it sounds like a very positive development
8 coming out of that behavior workshop and we'll certainly
9 be working you on that.

10 MR. OKADA: And if I could just add one more
11 point, studying the plug load area as well, that I kind
12 of believe that the two will be kind of very similar
13 nuances, where there's a lot of diffuse, small savings
14 potential that at the cost effectiveness level would not
15 be able to be implemented.

16 So, on the plug load side you've got advanced
17 power strips.

18 But they're ready-to-go market solutions that
19 could be implemented into multiple customer segments.

20 And so on aggregate when, you know, with
21 sufficient market education, outreach, et cetera you can
22 have immediate solutions that could be deployed to
23 address market conditions like the San Onofre outage.

24 But because of the current portfolio situation
25 or lack of prioritization of certain opportunities it's

1 hard to implement them in the current program design.

2 So, in the upcoming Action Plan and Strategic
3 Plan refresh there needs to be called out a certain call
4 to order of certain things that needed to be implemented
5 quickly in order to support market conditions, as well
6 as to support long-term research and to confirm market
7 evaluation, to determine that longitudinally that those
8 things have a potential to save.

9 Because, quite frankly, I think the
10 manufacturers, retailers and others are not going to
11 invest in something they can't see has a long-term
12 potential. So, the utilities are a stop gap to
13 implement something that the market's not aware of and
14 suppliers won't embark in.

15 But there are still companies that are trying to
16 make a go of it.

17 And so, just yesterday I came out of the
18 meetings with people that are trying to make a go of it,
19 have solutions that could be implemented, but can't work
20 in the portfolio right now.

21 Thank you.

22 MS. COLLOPY: Great, thank you.

23 So, it looks like we have one more comment in
24 the room and then we're going to go ahead and move
25 forward with the presentations.

1 MS. PHUOC LE: Hi, my name's Uyen. I'm the
2 Outreach and Compliance Officer at the International
3 Brotherhood of Electrical Workers, Local Union 11, so we
4 represent electrical workers in Los Angeles County.

5 And I just want to -- before we start the longer
6 conversation, I just want to try to frame what I believe
7 is sort of a very comprehensive nature of energy
8 efficiency, which kind of requires us to comprehensively
9 think about the different aspects within the Action
10 Plan.

11 I think it may be easier to treat financing off
12 on its own or to treat benchmarking even separate from
13 some of the data tracking on contractor pre-
14 qualifications to do the work.

15 But we think that because of the integrated
16 nature of all this, when we're talking about, you know,
17 workforce it's not just about who should be getting the
18 training, or what that training entails, but how does
19 job quality -- you know, how is compensating an engineer
20 better for having additional skills, how does that
21 actually impact the outcomes, the energy efficiency
22 outcomes.

23 And so that actually impacts financing, as well.
24 You know, if you're doing sort of a finance sheet you
25 need to know what the labor rates are for qualified

1 workers, not just what is the lowest we can pay
2 somebody.

3 So, just trying to think through these aspects
4 more comprehensively and then, also, maybe even having a
5 place in the Action Plan that says, well, you know,
6 here's how financing, and benchmarking, and data
7 management, and workforce development, here's how they
8 all actually connect in an integrated strategy.

9 CHAIRPERSON WEISENMILLER: Well stated, thank
10 you.

11 MR. ASHUCKIAN: We're actually running late. We
12 have lots of good comments, but we're going to have
13 another opportunity. Actually, after every presenter we
14 have an opportunity for comments.

15 So, if you wouldn't mind holding on to your
16 comments, if you want to fill out a blue card so we make
17 sure that you're in line.

18 CHAIRPERSON WEISENMILLER: Yeah, I do want to
19 make one comment.

20 (Laughter)

21 MR. ASHUCKIAN: There's always an exception.

22 CHAIRPERSON WEISENMILLER: Exceptions, yeah.

23 Well, I just want to make sure that -- one of the things
24 the report doesn't treat very well is direct install.

25 And so we have the opportunity to dig into that. Direct

1 install could be a way we could deal with some of the
2 low-income programs.

3 But an issue's going to be the scope of the
4 measures. You know, that if we can actually get boots
5 on the ground in someone's house, I want to make sure
6 it's a fairly deep program. Not just insulation, but if
7 there are things we can do with lighting, or HVAC, just
8 the whole package is done.

9 If there's things we need to collect in terms of
10 data, it's done.

11 You know, again, this isn't quite your
12 streetlight that you're going to touch once in 50 years,
13 so you better do it right. But, again, I want to make
14 sure it's a pretty comprehensive package.

15 And so to the extent that we don't have a very
16 strong record in our report on it, I want to make sure
17 that through people's comments and discussions that we
18 flesh that out.

19 (Off-microphone comment "can you please explain
20 direct install?")

21 COMMISSIONER MC ALLISTER: So, many of the low-
22 income programs in the State, there are really two types
23 of low-income programs. One comes through the
24 utilities, the other comes through from Federal
25 resources, through the community action agencies that

1 have different sort of names throughout the State. But
2 typically they're direct install.

3 Which means you go into a multi-family, a renter
4 situation or, you know, low-income home and generally
5 they're income qualified. And direct install as a class
6 doesn't have to be income qualified but they just tend
7 to be more towards the lesser incomes.

8 You go into a home or a business and it's
9 basically a free upgrade of targeted measures. So, it
10 could be lighting, it could be HVAC, it could be a new
11 refrigerator. It could be many, many different things,
12 but it's free to the customer, generally. And a bevy of
13 workers go into a multi-family building and just crank
14 it out, showerheads, all that kind of stuff. So, that's
15 kind of basically it.

16 They tend to be relatively expensive per unit of
17 energy, but they also are -- they're actually less
18 costly than trying to get a co-pay. So, the easiest way
19 to get in there is just get in there and do it, you
20 know, and quickly, effectively, and systematically.

21 MS. COLLOPY: Okay, thank you. If this is any
22 indication for the rest of the day, I think we're going
23 to have a great day.

24 (Laughter)

25 MS. COLLOPY: We do have slotted just like a

1 ten-minute break for right now, if folks want to get up,
2 move around, meet people.

3 One thing I would like to do just before we
4 break is I want to introduce you to the Energy
5 Commission staff that are here so that you can mingle
6 with us today, give us your cards, and connect with us.

7 In the front row here we have Keith Roberts.
8 He's doing public building upgrades.

9 Over here on WebEx is Justin Regnier and he does
10 small commercial buildings and a lot of other commercial
11 issues.

12 Martha Brook, in front of you, is our Senior
13 Engineer who works on a lot of nonresidential issues, as
14 well.

15 And so, please feel free to reach out to our
16 non-res folks today because we want to hear from you.
17 Thanks.

18 (Off the record for a 10-minute break)

19 MR. ASHUCKIAN: Martha, why don't you talk about
20 voluntary pathway number 3.

21 MS. BROOK: I can't, until the slide changes I'm
22 not going to say anything. Oh, I'm supposed to do that.

23 (Laughter)

24 MS. BROOK: This is pretty high tech here, so
25 it's pretty scary, huh. Okay, I'm the Senior Engineer

1 at the Energy Commission.

2 (Laughter)

3 MS. BROOK: Okay, all right, so when we started
4 thinking about how to really get to scale in the 758
5 Program -- yeah, it is, I think -- we started kind of at
6 the beginning, which is what we think is, you know, kind
7 of getting building owners and their agents to
8 understand the energy use of their buildings in relation
9 to other buildings to begin to understand if there's
10 opportunity for improvement.

11 So, benchmarking building energy use against
12 relevant baselines is a great place to start when
13 identifying these energy efficiency opportunities.

14 And multiple benchmarking baselines are relevant
15 and have, you know, proven to be very successful. You
16 can look at peer group comparisons, so for like
17 buildings compared to buildings just like themselves in
18 the same region.

19 You can look at national distributions of energy
20 use, like the Energy Star Portfolio Manager Tool which,
21 you know, compares your building against all buildings
22 like yours in size and business type across the nation.

23 You can look at your building energy use in
24 terms of how it relates to the State Energy Code, and we
25 think that's a relevant baseline.

1 And then also best practices. There's several,
2 you know, industry rating techniques for building
3 performance that are relevant in terms of understanding
4 where your building energy use in relationship to what's
5 the best practice potential for that building type.

6 But once a benchmarking process is identified,
7 the high level opportunity for improvement, building
8 owners and their agents need help prioritizing their
9 investments.

10 So, a benchmarking process will identify a
11 building level opportunity, but it will not identify
12 retrofit strategies. So, the next step for that, we
13 think, is for California to achieve five or ten times
14 scale in terms of energy efficiency retrofits.

15 Audit processes and commissioning investigations
16 need to be tuned for specific business segments. We
17 need to prioritize public assistance as under-served,
18 i.e. small buildings and businesses.

19 And these are also then market segments where
20 there are current gaps in available and appropriate
21 tools.

22 Restaurants have different auditing needs than
23 retail stores. Retail stores have different auditing
24 needs than offices. And even within the retail sector
25 each one is unique.

1 You know, you're going to have a nail salon
2 that's different from, you know, a Hallmark Store, and
3 they're all considered retail, but they have very
4 different things going on in those buildings. And we
5 need to begin to identify where there's opportunities
6 that can be looked at in each of those niche markets.

7 Five to ten scale increases will also require
8 innovation in use of data and technology to
9 significantly bring down the cost of retrofit measure
10 prioritization.

11 So, you know, the ASHRE Level 2 audit is not
12 going to work in these small buildings. You just can't
13 afford to even get into the building in the first place.

14 So, we really have to leverage both access and
15 analysis of data, and technology innovation to really
16 bring down the cost and figure out ways to get into
17 these buildings really, really cost effectively.

18 So, when we talked about financing on Monday, we
19 talked about actuarial data which is, you know, a kind
20 of a fancy term for measured performance.

21 So, we really think there's a big opportunity to
22 provide all sectors of the market, policymakers,
23 industry, everybody in the room, the public with more
24 and better information about what can be expected for
25 energy savings with all the different types of retrofit

1 activity that have been going on in the State.

2 So, I mean, business owners and their agents
3 really need to understand the risk of their investment.
4 And the best way to do that is to give them measured
5 information about what other people have saved using
6 those like measures.

7 And this is a challenge, but I think it's one
8 that the PUC and the Energy Commission are ready to take
9 on.

10 And there's a conflict there in a way because a
11 lot of the approaches that the investor-owned utility
12 incentive programs, and the PUC -- with the PUC guidance
13 have delivered, they've tried to cut savings on the
14 administration side by saying -- by using deemed
15 savings, and ex ante approaches where you basically say
16 if you do this, you're going to get this much savings,
17 and this is how much you're going to get paid back for
18 that through the IOU process.

19 But that doesn't give us measured data at the
20 end that really confirms the savings and it doesn't help
21 us really build up that actuarial database that -- not
22 just financing participants, but the public need to
23 really understand the risk and the opportunity of their
24 investments.

25 And there's many other technology innovation

1 things on the horizon. We're hearing all sorts of great
2 examples of using technology to bring down the costs of
3 auditing and retrocommissioning processes. Things like
4 using satellite imagery to collect square footage, and
5 envelope characteristic data for buildings,
6 disaggregating Smart Meter data with tools that kind of,
7 you know, help you break out what your heating, cooling,
8 ventilation, lighting loads probably are without a --
9 you know, a high-cost audit.

10 More and more cost effective ways to submeter
11 the building to get at that measured performance we
12 think there's lots of opportunity there.

13 And also just different approaches to identify
14 common cost-effective upgrades and Justin will talk a
15 little bit more about this now.

16 But we know that, you know, 90 percent of the
17 HVAC systems in small commercial buildings probably have
18 economizers that are broken or otherwise dysfunctional.

19 So, if we all know that, we shouldn't have to
20 pay an expensive audit process or go through that to
21 confirm that. We should figure out sort of like the
22 direct install approach, just go out there and fix them.
23 So, yay.

24 (Applause)

25 MS. BROOK: So, sorry if I stole any of your

1 thunder, Justin.

2 MR. REGNIER: You're preaching to the choir,
3 it's okay.

4 MS. BROOK: Yeah. Okay, so that was just an
5 overview of sort of where we're going with the key
6 strategies.

7 The two strategies that we've identified on this
8 topic are to develop benchmarking approaches that enable
9 targeting of high opportunity buildings for audits,
10 retrocommissioning and other upgrades, and to promote
11 standard tools and quality assurance for application of
12 those tools to increase user confidence.

13 So, the key initiatives that underlie these
14 strategies are to develop benchmarking tools that are
15 appropriate for the various segments of the commercial
16 and building markets, for example, large office, small
17 office, restaurants and retail, identify the segments of
18 the commercial and public building markets with the
19 highest opportunity for cost-effective energy efficient
20 improvements and ensure that tools are adapted for these
21 segments.

22 And design and implement a plan for widespread
23 delivery of tools that considers the special business
24 needs and communication channels within each high-
25 opportunity market segment, and identifies auditing and

1 retrocommissioning improvement opportunities.

2 Does everybody know what I mean when I say
3 retrocommissioning? Okay.

4 And then the initiatives that underlie the
5 standard tools and quality assurance strategy are to
6 identify, develop and modify energy benchmarking,
7 auditing and retrocommissioning methods that are
8 suitable, and scalable for a wide range of segments.

9 The methods should include both energy and non-
10 energy benefits, and identify, develop or modify savings
11 calculation methods that provide consistent and reliable
12 energy, demand and cost-saving estimates using actuarial
13 data to the extent possible to test the accuracy of the
14 calculation methods.

15 Establish an actuarial basis for validating the
16 cost and savings used for energy measure incentive
17 program calculations and ensure that tools used are
18 consistent across utility and municipal jurisdictions.

19 Identify critical decision making factors for
20 high opportunity sectors to implement benchmarking,
21 audits, and retrocommissioning, and energy efficiency
22 upgrades, use existing or develop new tools that address
23 those decision making factors.

24 And then we think there's a great opportunity to
25 pilot tools through local, regional and government

1 networks to determine the most effective platforms and
2 approaches to reach utility customers and targeted
3 building sectors.

4 So, that covers our strategy or our strategies
5 for this section of the Action Plan and we'd like to
6 hear any comments that you have.

7 MR. LANGSTON: Hi, Don Langston with Aire Rite.

8 Just real quickly, when we go into benchmarking
9 there's several different ways we can approach it. But
10 just to kind of keep things simple, one of the things I
11 work with my customers, when I'm looking at their
12 utility bills is just take their square footage and from
13 there look at their energy cost, primarily their
14 electrical cost, just to establish a simple benchmark of
15 electric cost per square foot. Kind of like a miles per
16 gallon.

17 MS. BROOK: Uh-hum.

18 MR. LANGSTON: And that seems to be a really
19 good way of looking over a portfolio of buildings that
20 could be running between 50 to 60 cents a square foot,
21 up to \$3.00 a square foot.

22 When you start looking at those high ones we
23 know that's a great place to start, because the
24 challenge is where do you start. And a lot of people
25 don't realize that because they've got another company

1 that's doing outsourcing for their accounts payable, and
2 they're just processing, they're just processing their
3 bills. So there's no one really analyzing that in a lot
4 of these even very large companies. So, that would just
5 be an easy place to start.

6 MS. BROOK: Uh-hum.

7 COMMISSIONER MC ALLISTER: Just to drill in on
8 that a little bit, is there an organization or sort of a
9 strategy, you know, an outreach strategy to get to the
10 right people who might be, you know, in a position to
11 actually look or sort of build into their process some
12 assessment there?

13 Is that the finance guy? That probably varies
14 by sector but, for example, there's a lot of talk these
15 days about schools. So, how -- you know, in the schools
16 is there a particular function that school districts
17 typically have that we might sort of marshal, get in a
18 room and say, okay, we're going to develop this
19 discussion and educate that strategic person or class of
20 people.

21 You know, unpacking the individual sectors and
22 sort of figuring out what the most effective pathway of
23 getting to the right decision maker I think is really
24 important. So, just to think about, not necessarily to
25 solve today but, you know, that's the kind of solution

1 that I think we're looking for is how to make it into
2 the market and get the decision makers the information
3 and the tactics that they need.

4 MR. LANGSTON: Well, and I think that's a great
5 idea. The challenge that we have is contractors. From
6 our perspective it's who do we talk to? A lot of times
7 we're with a property manager, you know, an operations
8 manager, facilities manager or director level that are
9 working on specific budgets.

10 And when we start talking about these types of
11 measures that are going to improve them, it's outside
12 their scope for that year's budget because they're
13 looking quarter to quarter and year to year, and that's
14 the challenge.

15 So, getting up to a CFO or someone that's
16 involved on a corporate -- publicly traded companies
17 will have someone in a sustainability function. And
18 being able to get to them is where we can talk multi-
19 year strategies, where we need to get to, because this
20 is not going to be solved in the next fiscal year for
21 anyone.

22 So, we've got to take a three-, five-, ten-year
23 approach. And I would think that would be something
24 that would be good to put into your documentation that
25 within these organizations they deem someone, you know,

1 whatever that energy manager is. A lot of companies I
2 deal with have energy managers and those are, in some
3 cases, relatively new roles. But as they start digging
4 in, they're talking between real estate, and facilities,
5 and kind of the construction development and finance,
6 and guess what, that's a great position to talk.

7 I'm working with several retail and restaurant
8 chains right now in those roles. And once they all
9 start talking and they get out of their own information
10 silos amazing things happen. So thanks.

11 MR. COSTA: Marc Costa from the Energy
12 Coalition.

13 Just to follow up on that, working with cities
14 we've seen that sometimes the people responsible for
15 insurance actually have the entire portfolio's worth of
16 information and they have the square footage, because
17 sometimes insurance is based on that. Then you would go
18 back and tie in the energy usage and then you get your
19 densities from there.

20 Just a couple other comments, so following up,
21 earlier in the week there was an AB 32 workshop and
22 there was a lot of emphasis on co-benefits, and a lot of
23 emphasis on interagency workings.

24 So, with respect to the tools, you know, it
25 makes sense that we've seen so many benchmarking tools

1 that are out there. Any commercial property owner knows
2 that there's a million ways to do it, a million ways to
3 do the audit.

4 But we've seen that maybe integrating the
5 processes, so integrating the first step, which is
6 before benchmarking is cataloguing the building. You
7 know, maybe using something similar to the C-taxonomy to
8 really catalogue all that information. And then from
9 there be able to have these separate siloed approaches
10 now talk to each other. So once you catalogue the
11 building that information would go into your
12 benchmarking tool.

13 So, the portfolio manager really is not robust
14 enough to do that detailed analysis.

15 MS. BROOK: Uh-hum.

16 MR. COSTA: The Building Performance database,
17 for example, doesn't even have cost effectiveness and
18 the climate zones are too large to even drill into what
19 we're doing here in California.

20 ZEUS data is a lot better. If you look at the
21 Whole Building Design guides, the NAS Energy Retrofit
22 guides, they're all based on Federal climate zones.
23 It's not relevant to specifically what we're doing here,
24 which really impacts cost effectiveness.

25 So, if you were able to integrate the

1 benchmarking, whatever you choose to use, with the
2 energy audit tools, you know, the audit-in-the-box
3 approaches, like the Building Energy Asset Rating score
4 from the DOE, if somehow all those things talked to each
5 other that would be really fantastic.

6 And that would also allow a multi-prong approach
7 to workforce development because then you would have
8 entry level jobs for people cataloguing buildings, all
9 the way up the high road jobs with people actually doing
10 the analysis and making the recommendations.

11 And then to go on one more step for co-agency
12 benefits would be that, you know, we found when I was
13 working at Long Beach City College we had the largest
14 screen jobs training program in the country at the time,
15 and it was the QTIP program that the CEC funded with the
16 WIBS, and the only reason that we found that we were
17 successful is because we paired up with programs like
18 Energy Upgrade California in L.A. County.

19 So, if through AB 758 there are programs for the
20 commercial sector that really haven't been addressed
21 through the ARRA funds, which was primarily residential
22 from what we saw, if you tailor a program to that and
23 you gently or strongly guide the WIBS and the agencies
24 in charge of these grants, and the required agents, and
25 required partners you can tailor these tools to an

1 emerging workforce.

2 And really, at the end of the day get better
3 information. It would go into the performance database
4 and you would have better buildings. So, that's the
5 comment there.

6 MS. BROOK: Okay, awesome. I'd love to hear you
7 and -- or see that in written comments.

8 And I have just a couple comments and then we
9 can get to you.

10 I'd say that I think that the -- that you're
11 mentioning ZEUS data and how important that commercial
12 end-use survey is to California's kind of -- really
13 characterizing our commercial buildings is very, very
14 important.

15 It's also true that that survey hasn't been
16 updated in over ten years. And I think that people
17 should be screaming about that and so I'm encouraging
18 you to do that in your comments to us.

19 (Laughter)

20 MS. BROOK: And I'd also -- I think that we have
21 been thinking about that partnering of workforce
22 development with professionals and that's a little, you
23 know, transition and stepping the process -- stepping
24 through the process of using entry level people to do
25 the kind of foundational, but relatively easy

1 characterization of the buildings and getting that into
2 a database, and then having the professionals be able to
3 access that database to identify opportunities is a huge
4 opportunity. And, actually, probably one that we'll be
5 pursuing under Prop 39 funding with the school districts
6 because there is a key workforce development component
7 of that and we would really like to see us be able to
8 sort of exemplify exactly what you talked about using
9 Prop 39 funds.

10 MR. BERNDT: Hi, Aaron Berndt with Pacific Gas &
11 Electric. I manage our Commercial Programs.

12 Regarding one of the key initiatives around
13 developing benchmarking tools, I wonder if you could
14 just clarify a bit of what's meant by that? So, we're
15 strong supports of Energy Star, and Portfolio Manager,
16 and benchmarking in general.

17 We also fully understand the benefits of
18 different approaches, so end-use intensity analysis.

19 One of the things that we're looking at is
20 making sure we're not confusing the market with tools in
21 general, so we're just curious as to how we're thinking
22 about that.

23 MS. BROOK: So, I think that's an excellent
24 comment. And I actually want -- and thank you because I
25 wanted to bring this up as well. We really need help

1 from you trying to figure out what the right role for
2 government should be in this domain.

3 So, it's not necessarily that we need to build
4 another tool. Maybe it's just establishing that common
5 data protocol.

6 We really need some guidance there because we
7 have limited resources and we don't want to confuse the
8 market.

9 But we also know that Energy Star Portfolio
10 Manager, its entire focus has been -- because they're
11 really trying to reduce greenhouse gas emissions, and
12 that was the original focus, has really focused on the
13 largest commercial buildings.

14 And it's also a national tool and so it's not
15 going to necessarily help, you know, small retail stores
16 understand where they fall in that whole energy use
17 landscape.

18 But we do have, you know, Energy IQ. That's a
19 California product. It's based on ZEUS and there's some
20 opportunities.

21 And I think that is a real challenge is how do
22 you get the right tools into the decision maker's hands
23 without bombarding them with so many options, and they
24 don't understand the value, you know, the different
25 values that each one provides.

1 We don't have the answers and we need to work
2 with you to figure out the right pathway forward.

3 MS. ELIZABETH: Hi, I'm Zoe Elizabeth from the
4 California Center for Sustainable Communities.

5 And I have two quick comments. One, I want to
6 really just reiterate and emphasize something that you
7 said I think is so important, which is doing real-time,
8 after-the-fact energy assessments is one of the things
9 that we're finding in our research is that energy
10 efficiency increases don't necessarily mean that you're
11 reducing energy consumption and there's often a rebound
12 effect.

13 One of the things that we don't understand that
14 well is how humans then begin to value their energy,
15 once they know that that energy in some ways is cheaper.

16 And so if the end goal is reducing energy, not
17 merely making it more efficient, we really need to
18 measure how these upgrades are actually leading to a
19 reduction of energy, or perhaps not, or perhaps even
20 leading to increases in energy consumption which is
21 something we are beginning to see in some of our work.

22 And then the second point, and I've been out of
23 the discussion around retrocommissioning for a little
24 while, but I think that something that I would really
25 recommend that the Energy Commission emphasize as part

1 of that is, again, the role of organization structures
2 and human behavior in energy.

3 So, for example, one of the things that you
4 often see is that there's this, as we all know, the
5 issue of split incentives. So, the budget that the
6 dollars are coming out of to put in some of these
7 retrofits and the budget for where the energy savings
8 are, are different.

9 And so, you know, if I'm running the building
10 and, again, my energy has become -- my air conditioner
11 is more efficient, there's no incentive for me,
12 necessarily, to reduce my consumption.

13 And so, oftentimes, there could be ways that
14 simply -- that might be quote/unquote free by
15 restructuring how budgets are run, organizations are
16 done, or even simply getting the information into the
17 hands of the people that are actually making choices
18 about leaving the lights on or turning computers off at
19 night can have very strong and important impacts on
20 actual energy consumption.

21 MS. BROOK: Thank you.

22 MR. GOFF: Hi, Christopher Goff. I work for the
23 Southern California Gas Company in the customer programs
24 group.

25 I like the points that you presented about

1 establishing a universal -- universal tools and
2 universal benchmarking tools that customers, utilities,
3 regulatory agencies, their consultants, customer
4 consultants and vendors could use.

5 Because if we have, you know, universally
6 recognized procedures and universally recognized and
7 accepted tools we would know that any incentive that we
8 pay to a customer out of ratepayer funds, it's valid.
9 And the energy savings claims that we submit are valid.

10 And vendors and consultants would know that the
11 picture, the energy picture and the benefits picture
12 they present to customers are valid.

13 So, I think it would really streamline things if
14 we had something that everybody could use and everybody
15 agreed on.

16 I think that's really a key point.

17 MS. BROOK: Okay.

18 MR. GOFF: So, I think that's the right
19 direction.

20 MS. BROOK: Okay, well, thank you for that. And
21 I think it may be important to think about, when you're
22 filing your written comments, is helping us not just
23 identify that need, but what's the best implementation
24 path to address that need.

25 I mean, with the Energy Commission's limited

1 resources, we can't just go running off and build a
2 bunch of tools, nor is that maybe the appropriate thing
3 to do.

4 So, how do we work with the PUC and to really do
5 that establishment of standardized tools? I think it's
6 a big question that we need help from you with.

7 MR. SUZUKI: My name is Gary Suzuki -- sorry.

8 COMMISSIONER MC ALLISTER: Mic's not on. Oh,
9 there we go. Sorry, hope you're all okay.

10 I would just also throw out that, you know, to
11 the extent we can leverage Federal resources, you know,
12 we've talked about how those tools may not be a good fit
13 for California per se. But, you know, we do have a
14 pretty robust -- we have good ins, obviously, to
15 Department of Energy and they're doing a lot of
16 interesting stuff and we certainly want to collaborate,
17 coordinate with that as much as possible.

18 MS. BROOK: Right.

19 COMMISSIONER MC ALLISTER: So, they are
20 developing tools, and if they're trying to scope
21 something out we want to sort of inform that process so
22 that what they end up with is something that's feasible,
23 that overlaps well with or, you know, dovetails well
24 with what we're doing here in California.

25 MS. BROOK: Right.

1 COMMISSIONER MC ALLISTER: So, I think, you
2 know, thinking a little bit broadly outside the box, you
3 know, we don't necessarily have to have a California-
4 specific solution for everything. Even though we like
5 to do that, but we don't have to do that.

6 And it's efficient. You know, in these times
7 there's not infinite resources for everything we might
8 want to do, so it's just good practice.

9 MS. BROOK: Right. Yeah, and we did hear about
10 several national efforts just in the comments. And I
11 think Keith's going to talk about a couple of them in
12 terms of data, so absolutely it's important.

13 MR. SUZUKI: My name is Gary Suzuki. I'm with
14 Southern California Edison.

15 And I do want to say that the benchmarking tool
16 is a great place to start. But it's not just a starting
17 point, it also can be used as a free measurement tool
18 for customers to use and see the progress that they
19 make. So, I think that's an important item that I did
20 want to stress.

21 And as far as small business customers,
22 absolutely our experience has been that they are very,
23 very costly to have adopt or create the time to learn
24 about items, and also to adopt energy efficiency
25 measures.

1 But in collaboration with the CPUC, statewide
2 utilities have either released or are developing small
3 business audit tools that they would be able to audit
4 themselves for free. And there's no better cost-
5 effective way than if we can get that into the process
6 of our customers to go to the utility websites, check
7 out their tools and be able to audit their facilities.

8 But in addition to that, if we can also continue
9 on this and have a straight -- a policy where we all
10 were collaboratively, and we enhance these tools to
11 become more and more customer friendly, be able to have
12 links to other areas where they can get the information
13 that they need at one stop, even at some point link to
14 some online audit -- I mean online program applications
15 that we have directly.

16 These are some of the things that we are
17 pursuing at Southern California Edison and we think that
18 it's a way that we can also serve the customers.

19 One last point would be that the data that we
20 get from the audit tools that they fill out, you talk
21 about direct install, when I was an energy service rep
22 many years ago, when we did do audits for customers, we
23 wished we had that wagon with everything that would help
24 them right there for us to install.

25 What if we got good enough with the audit tools

1 that we develop for the small business customer to be
2 able to identify these are the things that they need.
3 So, when our direct install people go out there, they
4 already have that information pretty much inventoried
5 and identified of what will work in that customer's
6 facility.

7 MS. BROOK: Great, thank you.

8 MR. SUZUKI: Thank you.

9 MS. BROOK: You know, I think that brings up a
10 good point for us. And this Action Plan is -- we don't
11 know all of the details of the current program
12 portfolios. And so to the extent that 758 is supposed
13 to be identifying gaps -- I mean we're also not going to
14 write about every single thing that's going on, now, but
15 we do need to understand where we can make
16 recommendations to take what you've been doing, and
17 doing well, and taking it to the next level, and where
18 the gaps are and where you feel like you can't go as
19 engaging -- engaging with your customer, or it's not
20 cost effective, or other gaps that we can identify and
21 work on together.

22 COMMISSIONER MC ALLISTER: One thing I wanted to
23 add to that, I mean as you alluded to, there's
24 tremendous innovation going on in sort of analytics that
25 are based on Smart Meter data, you know, small interval

1 data, with customer consent, that can sort of go into a
2 third-party tool that can really do some pretty
3 innovative stuff.

4 And so that's at all levels, that's small
5 business, that's residential. Potentially, you know,
6 lots of different sectors.

7 And so that, you know, is under development. I
8 think there's a lot of creative thinking and actually
9 some venture capital going into this area and how do we,
10 through the utilities, through other means really get
11 people to push that button that enables their data to go
12 use one of these tools and come back with some
13 actionable items. I mean we ought to be shouting that
14 from the mountaintops, but we have to sort of plan that
15 out and make it happen in a way that makes sense.

16 And that can then feed this whole chain of
17 decision making, you know, information, education, and
18 eventually, hopefully not too eventually, decision
19 making with an actual project.

20 And, you know, getting our feet going, or
21 getting quotes, and making a decision.

22 So, I'm really excited about that area. I'm
23 sure many of you know more about that and I would love
24 to hear about, okay, how are we going to make this
25 happen on that scale? You know, how are we going to get

1 the word out, what does that look like to you?

2 MR. BACHAND: Hi, I'm Mike Bachand from
3 CalCERTS, a HERS provider.

4 I've been thinking about the comments about
5 workforce development and the -- even in the other
6 workshops, they all talked about workforce development
7 in one respect or another.

8 And one of the lessons that we learned at ARRA,
9 during the ARRA timeframe, was we trained a boatload of
10 people and a lot of them, you know, benefitted greatly
11 from that and we certainly appreciated the opportunity,
12 and they appreciated the opportunity to change their
13 careers, and upgrade their training and so forth.

14 But another aspect that came out of that was
15 that that boatload of people that got trained, when they
16 stepped off the boat they didn't really have a great
17 market, a job market to go into, and so there was quite
18 a bit of concern about that.

19 And so I would like to promote here, through
20 this process, through the Action Plan programs that get
21 developed that the training be aligned with programs
22 that are developed. So that an appropriate connection
23 is made there and we don't waste dollars.

24 It's never wasted to learn something new but,
25 you know, we've got, like you said, limited funds that

1 need to be targeted.

2 So, that would be something that I hope I'll put
3 in some additional comments in writing but --

4 COMMISSIONER MC ALLISTER: That would be great.

5 And I think somebody earlier made the point of sort of
6 tiered, you know, the right skill set for the right job.

7 MR. BACHAND: Yeah.

8 COMMISSIONER MC ALLISTER: And I think that's
9 really key. And, you know, it's a nascent marketplace
10 and parts of this marketplace are nascent. I mean not
11 so much in the commercial. I mean we're in L.A., it's a
12 commercial place, there's tons of activity going on.

13 But there are -- we don't want to overkill with
14 skills that then they go out, and they graduate, and
15 then they don't have a job. And at the same time we
16 want deep enough skills that they actually are relevant
17 for a contractor who's doing work. And so there's a
18 balance there we have to strike, I think.

19 MR. BACHAND: Yeah, and along with the skills
20 that they learn is the attitude to use them properly,
21 and that's an additional part of workforce development
22 that needs to be worked on. I'm sure everybody would
23 agree with that. Thanks.

24 MS. BROOK: Thanks.

25 MR. COHEN: David Cohen, Energy Coalition,

1 again. I just wanted to bring it to your attention that
2 Los Angeles County has an EEMI system, which is
3 Enterprise Energy Management Information system. And
4 through the Southern California Regional Energy Network
5 we actually have a program that's expanding that.

6 It's currently open to all public agencies
7 within California to join in. Currently, 54 cities have
8 actually joined the system. And the system was built by
9 Los Angeles County to manage their own buildings under a
10 contract with McKinstry.

11 And all of the utility bill information is
12 automatically uploaded into the system, as well as when
13 other public agencies log on, or sign up, they sign the
14 form and all their data is in there.

15 And basically what it does is it opens up and
16 easy-to-comprehend dashboard for the end user. You can
17 rank order your buildings based on square footage,
18 energy use per square foot. You could baseline your
19 projects, if it's time-of-use meters you can look at it
20 every time that there's a pulse being sent to the EEMI
21 systems.

22 I think that we're going to put these in written
23 comments, but I think that might be a very good research
24 project as you maybe look at what could be expanded to
25 California.

1 It's very easy to expand it and I think you
2 could open it up easily to any sector that has a utility
3 account.

4 MS. BROOK: So, how are you doing it with the 54
5 partner cities? Do they pay like a server fee to get
6 access to the database for their buildings or how does
7 it get expanded?

8 MR. COHEN: So, there's a simple -- there's a
9 small hardware charge which, currently with the 54
10 cities was actually funded by Edison through the
11 Strategic Plan dollars. And then it's basically \$30 per
12 service account that's being -- per year.

13 MS. BROOK: Okay.

14 MR. COHEN: And then in the second year and
15 beyond it drops down to \$12 per -- I believe \$12 per
16 service account.

17 MS. BROOK: Okay.

18 MR. COHEN: So depending -- and you could use
19 water. You could put water in there and then it could
20 easily be expanded to -- I mean there's lots of
21 different modules that could be added depending on the
22 marketplace and the size.

23 MS. BROOK: Okay.

24 MR. COHEN: But from what I understand it's an
25 unlimited server space.

1 MS. BROOK: Okay.

2 COMMISSIONER MC ALLISTER: I wanted to just give
3 a call out to L.A. County for that because it's really
4 good to hear that's happening.

5 MR. COHEN: Yeah, it is.

6 COMMISSIONER MC ALLISTER: Because I know it was
7 a twinkle in Howard's eye a while back and --

8 MR. COHEN: He's very proud of it and I love
9 selling it.

10 (Laughter)

11 COMMISSIONER MC ALLISTER: That's great, thanks.

12 MS. PINZOI: Good morning, Stephanie Pinzoi,
13 Director of the California Center for Sustainable
14 Communities here at UCLA. I'm thrilled that you guys
15 are here holding this hearing.

16 I just want to make one small comment and then
17 at the end of the hearing I'm sure we're going to have
18 more comments, and also provide written comments.

19 But one part of this energy efficiency strategy
20 that we may need to consider a little bit more is the
21 side that involves building inspectors.

22 And I understand that part of the difficulty,
23 really, going back to workforce development, actually,
24 is really getting the building inspectors in the State
25 completely on board and part of understanding what these

1 new technologies are, how they're applied, how to
2 evaluate them and to give feedback not only to the
3 building owners, but also interacting in the building
4 contractors in the installation of these new kinds of
5 technologies.

6 So, I think that that's an aspect that we don't
7 talk about very much, but also they're partners in
8 really moving the State's agenda forward. And we ought
9 to think about what that relationship looks like, if
10 there are training programs, if there are workshops, if
11 there's a new set of criteria. I don't actually know,
12 but I do think we should pay some attention to that.
13 So, thank you very much.

14 MS. BROOK: Thank you.

15 COMMISSIONER MC ALLISTER: Hey, Martha, could
16 you talk about the stuff that was built into Title 24 on
17 the training front? I know that we focused on new
18 buildings. So, I'm wondering, actually, for my own
19 information, what the sort of lighting and the HVAC for
20 new construction, how much sort of spillover do you
21 think for the existing buildings, and upgrades, and
22 retrocommissioning, and all this kind of stuff with
23 those efforts?

24 MS. BROOK: All right. So, we do have new
25 requirements in the 2013 that will be implemented or

1 take effect January 2014 that require lighting control
2 systems, and HVAC systems to be inspected, basically, by
3 a certified technician.

4 So, we have acceptance test criteria in the
5 standards already. This is the first year where it will
6 be required that those acceptance tests be performed by
7 a certified technician.

8 But our standards cover not only newly
9 constructed buildings, but additions and alterations.
10 And so there will be several opportunities or, you know,
11 requirements for retrofits to be basically inspected by
12 a certified acceptance test technician.

13 I'd say especially for lighting controls our new
14 requirements also kick in earlier that if you modify ten
15 percent of the space or ten percent of the lighting
16 fixtures in a space, you have to bring the whole space
17 lighting control systems up to code. And we have very
18 stringent lighting requirements in the standards.

19 So, this is kind of a good news/bad news thing.
20 It's great to get existing buildings up to code with
21 lighting retrofits, but the challenge and the scary part
22 is we have to figure out a way to not get people to just
23 not do the retrofits because they don't want to bring
24 them up to code. So, that's a real issue.

25 But in terms of certifying inspectors, we

1 certainly are moving forward in a big way in the
2 Building Industry Code.

3 MS. HANDY: Hi, Jessica Handy with Code Green
4 Solutions. I'm also here representing BOMA Greater Los
5 Angeles.

6 I appreciate the difficulty of establishing a
7 universal regulation or guide for a large space, such as
8 this State.

9 It concerns me that there's what sounds like a
10 lack of definition of small and medium businesses.

11 MS. BROOK: Uh-hum.

12 MS. HANDY: Someone asked -- I think you asked
13 who -- or sorry, Mr. McAllister, you asked who in the
14 organization should you target?

15 Yes, the CFO would be great, if some of these
16 small and medium businesses had a CFO, right.

17 Property managers are a luxury, as are vice-
18 presidents of sustainability with some of our larger
19 businesses.

20 (Laughter)

21 MS. HANDY: We do a lot of energy audit work in
22 San Francisco, under their existing Commercial Building
23 Energy Performance Ordinance and a lot of my clients
24 will be manning the front desk, they will be helping to
25 create the product in the back, they are producing the

1 payroll. I'm usually speaking with the owner. And to,
2 I guess, not recognize their special circumstances could
3 potentially put a tremendous burden on these folks.

4 One of the things that I've heard about
5 recently, and I tried to get more information before
6 this event, but I couldn't, is -- and I believe it's in
7 New York where, instead of requiring these small
8 buildings, and in New York City small is considered
9 50,000 square feet and less, we see a -- which here is,
10 you know, a pretty good size.

11 In any case, requiring the smaller buildings to
12 not necessarily go through the audit process because,
13 like we're finding in San Francisco with the smaller
14 buildings, we're producing pretty much a cookie cutter
15 audit every time. You know, it's the same thing that
16 needs to be upgraded at each building.

17 And before we even walk in the door they know it
18 needs to be done.

19 So, we hand them this report which has value to
20 it, but not as much as the city intended.

21 So, this idea in New York is they've put
22 together a Chinese menu of sorts where, instead of doing
23 the audit you pick -- I think it's a list of ten items,
24 you pick three to implement.

25 And so although you won't be getting the

1 actuarial data that you're looking for, you will be
2 getting a product. They will be taking action.

3 MS. BROOK: Uh-hum.

4 MS. HANDY: So that's just one way to get --

5 MS. BROOK: Well, thank you, I think that's --
6 yeah, I think that's a really good suggestion.

7 And every example that's happening across the
8 nation that you know about, we'd really like to hear.
9 We can do some of that homework, but not all of it.

10 And I think that's a great approach. I think
11 that auditing small and medium commercial buildings is a
12 huge challenge and we need to figure out all sorts of
13 different options.

14 MS. NEFF: Yeah, as somebody who owns medium-
15 sized commercial buildings, it is a challenge. We own
16 buildings that are up to three-quarters of a million
17 square feet. We own buildings that are 11,000 square
18 feet. I have the entire range.

19 Also, if you'd like to try a pilot program with
20 a lot of small buildings that have never been touched,
21 I'm your girl, because I can't touch them. I don't know
22 how. Most of them are triple net.

23 If there is a way to compel a tenant to do it, I
24 would just like to say that the greatest programs for,
25 as an owner, I'm actually very sad, I think I'm the only

1 owner here and so I think -- I mean everybody's sort of
2 trying to talk about how you influence me.

3 MS. BROOK: Right, right, right.

4 (Laughter)

5 MS. NEFF: And I can tell you that anything that
6 is on-bill or utility driven directly is fantastic.
7 Because as soon as you try to have -- you know, a good
8 example right now is I'm trying to retrocommission a
9 building in San Diego. It's not very big, it's 80,000
10 square feet. And the tenant runs about half the HVAC
11 and the tenant doesn't particularly like us for a
12 variety of reasons.

13 And so they just won't do it and I can't do that
14 project. It would be so wonderful if there was a way
15 for just SDGE to come in and say you know what, we're
16 retrocommissioning your building. We're not going to
17 deal with the landlord. Whoever pays this bill, we're
18 doing it to your space, it is this requirement.

19 So, as much things -- as many things that can
20 come directly from a utility, as opposed to an incentive
21 program that's very hard, basically requires a
22 collaboration that maybe isn't necessarily there is most
23 welcome.

24 So, 59 buildings in San Diego, most of them are
25 an average of 90,000 square feet, just keeping me in

1 mind.

2 (Laughter)

3 MS. BROOK: So, I think that's great and really
4 emphasizes, I think, the Chairman's talk at the
5 beginning where he really, really wants us to focus in
6 on tenant least space.

7 And if you wanted to describe an under-served
8 market, that's probably it.

9 MR. BAKER: Just wanted to respond to the
10 comment about need for on-bill solutions, right. So,
11 you're probably aware of the on-bill financing program
12 which is currently available. Hopefully, you're taking
13 advantage of that.

14 MS. NEFF: We love it.

15 MR. BAKER: I also just wanted to draw your
16 attention to the proposed decision that was issued this
17 week, which envisions an on-bill repayment program,
18 which would be leveraging private financing capital
19 through the utility bill as a repayment mechanism, so
20 looking at piloting that approach as well.

21 Certainly welcome your comments on that proposed
22 decision, if you support that.

23 MS. NEFF: Yeah, we like anything that avoids
24 legal fees and on-bill approaches do not require legal
25 fees, so they are useful.

1 MR. BAKER: Yeah.

2 COMMISSIONER MC ALLISTER: That's great. So,
3 thanks very much. And I mean I know it's wonderful to
4 be popular and we appreciate your exposing yourself to
5 this.

6 But please, you know, if and when a working
7 group on lease space, on small and medium commercial, on
8 whatever topic is going to, you know, be your vehicle
9 for getting stuff done with this, I think, you know,
10 please be involved in that.

11 Because I think that, you know, again, one of
12 the reasons that the -- so, the on-bill finance that
13 SDG&E's been doing over the last few years, with great
14 success, was kind of artificially cheap because it was a
15 pilot, and it had limited funds, and it was ratepayer
16 funds I think that were being used. And Simon will
17 correct me if I'm wrong, but it was zero percent and it
18 was, you know, a great, great deal.

19 But across the board, not just with OBR, you
20 know on-bill, but with all these things we really need
21 to get -- I mean there's trillion of dollars of private
22 capital on the sidelines. I mean less so than there was
23 a couple of years ago, but still there's a lot of
24 private equity around there looking for a good place to
25 invest, and energy efficiency's a great place to invest

1 if it can be a clear value proposition.

2 And so a lot of this is trying to sort of draw
3 out private capital to a project like that, to a project
4 like yours or others.

5 So, I think how that happens, that works with
6 you and works for your tenant is going to vary by
7 circumstance. And we just want to make sure that we're
8 asking the right questions and putting in place the
9 right programs.

10 MR. JOHNSON: Scott Johnson, again, National
11 Comfort Institute.

12 I've got so much to say and I don't know how to
13 fit it in, and I'm just going to throw some stuff out.

14 Because it appears like we're talking about, you
15 know, the baseline, benchmarking of our commercial
16 buildings and primarily that's our main focus.

17 And from what I understand in just listening to
18 you guys is we don't want to duplicate, right. We don't
19 want to duplicate stuff.

20 Well, one of the things of not duplicating is to
21 definitely look at history and find out the things that
22 we've learned in the past and not miss that.

23 I'm hearing, you know, doing like a disagg --
24 you know, a utility bill disaggregation, which is a good
25 thing. That takes some expertise, definitely, but it's

1 a great way to go.

2 But I'm also, I'm thinking, hearing and
3 listening that they were actually entertaining going to
4 a component-based type measure to figure out how to
5 benchmark a building, for somebody to go online, maybe,
6 and look at some particular measures they've got and
7 figure what they're going to do as far as for savings.
8 Did I -- or is anybody entertaining that?

9 MS. BROOK: Were you talking about the
10 suggestion where there's like the Chinese menu, is that
11 what you're commenting on?

12 MR. JOHNSON: Yeah, something like that.

13 MS. BROOK: Well, it's been implemented in New
14 York with some success so, certainly, we need to
15 consider all of the options.

16 MR. JOHNSON: Okay. Yeah.

17 (Laughter)

18 MR. JOHNSON: So what's going on now, you know,
19 like I was talking about instrumentation earlier and as
20 far as, you know, individuals having the diagnostic
21 abilities to actually look at a structure, have high,
22 deep training on generals -- you know what, back in the
23 80s and 90s something that we realized is that we
24 really, really need generalists.

25 MS. BROOK: Uh-hum.

1 MR. JOHNSON: But look at where we're trying to
2 go now, these generalists have to have really, really,
3 high -- highly trained up and powerful, be able to look
4 at a structure and get a real general snapshot about
5 what's going on there.

6 But have the specific diagnostic and subject
7 matter expertise to actually go in there and test, and
8 find out real performance measures and truly what's
9 going on inside of this structure.

10 And, of course, HVAC is one of the big ones, and
11 then motors, you know, and be able to measure your way
12 in and out and prove what's going on with performance.

13 So, whoever or however we're going to do this, I
14 mean I hope we're looking at an ability of somebody to
15 go in there and be highly trained.

16 When you guys -- when the utilities start doing
17 their benchmarking and, you know, when I got involved in
18 it was the early 2000s, and I'm training up engineer
19 firms to go out and do the commercial benchmarking for
20 the utilities, even they weren't trained up properly to
21 be able to go out and do the measurements.

22 So, I hope we don't lose this opportunity to
23 really take a serious look on how we're going to take
24 these individuals, make sure they're highly cross-
25 trained to actually do full-blown diagnostics so we're

1 not guessing.

2 MS. BROOK: Uh-hum.

3 MR. JOHNSON: Know what I mean? And it's just
4 my opinion, the existing workforce and people are
5 trained out to do this thing for compliance, or even
6 utility programs, mostly, some of them are pretty
7 advanced, are not ready, up to the task, so we need to
8 step it up.

9 MS. BROOK: Okay.

10 MR. JOHNSON: So, anyway, there you go.

11 MS. BROOK: Okay, thanks.

12 We have one comment online?

13 MR. ASHUCKIAN: Yeah, we have one last comment
14 online and we need to make it quick, we're running
15 behind again. So, one comment online and then we're
16 going to move to the next section.

17 MR. REGNIER: So, George should be unmuted.

18 MS. BROOK: George, are you online?

19 MR. NESBITT: Yes, can you hear me?

20 MS. BROOK: We can, George.

21 MR. NESBITT: Great, thanks.

22 So, benchmarking is a great tool, although it's
23 certainly one of many tools we need. My understanding
24 is often comparing energy use of your building to
25 someone else is a rank motivator if you're a higher

1 energy user versus a lower energy user. Yet, lower
2 energy users still have opportunities for savings.

3 And I think one of the difficulties is without
4 enough data you might look high or low but, you know,
5 based on occupancy differences and other things you may
6 be -- you might look high or low, which may or may not,
7 you know, let you recognize that you have opportunities.

8 Obviously, the more history data you have to
9 know what the long-term use and trends have been,
10 someone mentioned actually looking at it to track, say,
11 progress for upgrades although, of course, some of that
12 gets skewed with take-back or maybe additional things.

13 And also looking for changes of use which could
14 alert you to, oh, we've got a problem. You know, and
15 all of these require someone paying attention to it.

16 I think one of the difficulties we have, as we
17 get into the multi-family and also in the commercial end
18 is there's tenants. And it's probably the owner of the
19 building -- well, in some cases the owner of the
20 building definitely needs and wants to track, but in
21 other cases -- well, and even with tenants, although the
22 tenants might want to track, the owner may still also
23 want to track.

24 The difficulty is access to bills. And maybe
25 Simon or maybe someone else can address the question of

1 access to tenants bills for the owner, even if it's sort
2 of an aggregate, and whether or not that is or can be
3 made easier because that's obviously a barrier to doing
4 benchmarking in many cases.

5 MR. ASHUCKIAN: Thank you.

6 MR. NESBITT: Thanks.

7 MR. ASHUCKIAN: Okay, next we have Justin.

8 MR. REGNIER: Thank you everybody. Good morning
9 and thanks for your attention on this issue. I think
10 we've had a bit of discussion on it ahead of time. I
11 prefer to think of it as queuing up, rather than
12 stealing the thunder, so appreciate everybody's
13 comments.

14 As we know, achieving upgrades in small and
15 medium commercial buildings is an important goal, but
16 it's one that's caused quite a bit of consternation over
17 the years for policymakers. I mean there are a lot of
18 issues that keep the path to achieve this goal from
19 being clear. I'm not going to run them into the ground
20 because we're all kind of aware of them.

21 But there are, you know, a limited amount of
22 energy savings per project. There's a limited amount of
23 attention that the decision maker will spend on
24 considering the project.

25 You know, unlike other segments there generally

1 isn't a single, sophisticated decision maker whose
2 economic interests line up with reducing energy in that
3 property.

4 One that's particular to this one is that
5 participant trust is often based on peer feedback and
6 there's no real clear marketing channel. Sometimes
7 you've got industry associations that you can get
8 through for a particular segment of the sector, but it's
9 not always a clear path and it's not always guaranteed.

10 And the business needs are very different
11 throughout the sector. You know, we've got different
12 segments, from the small grocery store on the corner all
13 the way up through medium offices, and everything in
14 between.

15 You know, and given these factors one might be
16 tempted to ask why we want to focus on this segment.
17 But to paraphrase Willie Sutton, you know, we're going
18 there because it's where the buildings are.

19 What you've got up here on the graph -- and
20 apologies to the people online because you can't see me.
21 But the first two bars are 50,000 to 100,000 square feet
22 buildings. What you're looking at is the cumulative
23 frequency on a percentage basis, from the ZEUS study, of
24 commercial buildings in the State of California.

25 And you can see that a great, great majority of

1 them are in what we are calling the small to medium
2 sector.

3 Given the fragmented nature of this segment, any
4 program that we're going to lay out is going to require
5 a variety of approaches that are targeted to the various
6 types of decision makers and the various different
7 situations they find themselves in, and their business
8 realities.

9 So, in order to guide us in our efforts on this
10 pathway we're using the following goal-to-gauge
11 progress. What we're after is the universe of energy
12 savings that can be had in such a way that the upgrade
13 project that delivers the savings is cost effective for
14 the decision maker that undertakes them.

15 You know, in short, the success of AB 758
16 depends on reaching a large number of existing
17 buildings. The ones we're looking at in this particular
18 pathway comprise the majority of commercial buildings.

19 And we can do this. We've done this
20 successfully in the past. These buildings and their
21 decision makers have been successfully been reached by
22 well-targeted approaches.

23 But it's not a silver bullet. I forget what
24 caller was on the other day and they were talking about,
25 you know, instead of a silver bullet, you know, silver

1 bird shot, where you've got all these different
2 solutions going out targeted to the right audiences.

3 So, key strategies. You know, the takeaway from
4 the ones that we've got up here is that we're going to
5 be focusing on identifying, first, those buildings that
6 actually have the greatest potential to achieve savings
7 and we'll be working with all the appropriate parties to
8 make sure that we get all the right protocols in place
9 to flesh out the achievable savings in those buildings.

10 You know, we're intent on adopting those
11 processes that have proven to be successful in the past
12 and then partnering with organizations that are already
13 engaged in this arena.

14 We're not trying to reinvent the wheel here.
15 It's a huge challenge and there's already some success
16 stories out there. What we're trying to do is
17 understand what's working and make sure that it gets
18 carried forward.

19 The second half of our key strategies to these
20 pathways addresses elements that we see as key to
21 successful implementation.

22 You know, it's anticipated that there will be a
23 good amount of pilot activity. We appreciate people
24 stepping up and willing to be a part of that.

25 We've got to test the technical assumptions.

1 We've got to test the marketing and the outreach
2 approaches that may work.

3 And we've got to make sure, as one gentleman
4 said that we are delivering and getting the results that
5 we think we are getting.

6 You know, the specific elements that we will be
7 addressing in these pathways will be detailed a little
8 bit more in the following slides.

9 You know, voluntary pathway 3.1 is all about
10 getting the right information and services to those
11 buildings and decision makers that stand to benefit most
12 from them.

13 In order to do it we need to first identify
14 which buildings have the greatest opportunities. This
15 is the population that makes up our target segments.
16 And it's segments, plural. It's not a homogenous group.

17 You know, with this information in hand we can
18 progress to a better understanding of those projects
19 that are well-suited to the business needs of those
20 particular segments and design direct install programs
21 that dovetail with those business needs.

22 You know, Mr. Suzuki, you made a comment on
23 having the integrated set of solutions and I think
24 that's a very powerful concept.

25 While it's true in all sectors that customers

1 have a limited time to decide whether they want to
2 participate in an upgrade program, it's particularly
3 true with this group, as Ms. Handy mentioned.

4 You know, successful programs have found that
5 streamlining the process, minimizing technical jargon,
6 focusing on the business benefits to the customer as an
7 effective way to build a rapport are ways that we can
8 achieve a lot greater success than perhaps we'd seen in
9 the past.

10 Now, initiatives 3 and 4, particularly, are
11 intended to make sure that the time -- you know, that
12 precious time that we've got in front of the customer
13 results in the most benefit to both the customer and to
14 the upgrade program, that's it's a win-win.

15 You know, one of the inherent challenges in
16 reaching this sector has been that they don't have that
17 much time or money for planning and executing upgrade
18 projects. That's just a reality of this sector, as a
19 whole and, you know, a reality on almost all of the
20 segments within it.

21 You know, pathway 3.2 is designed to plot a
22 course towards making the delivery of actionable
23 information as inexpensive and painless as possible for
24 the customer.

25 You know, 3.3 is all about implementation. Many

1 of the initiatives you're seeing here are similar to the
2 ones that you have seen in 3.2, and for good reason.
3 These initiatives outline a processing for piloting and
4 refining the protocols developed in earlier pathways,
5 and for incorporating areas that have well-documented
6 needs in the overall program design.

7 The approach, you know, we've talked about
8 bundled measures a little bit. And the approach of
9 bundling measures that complement each other is being
10 pursued as a way of delivering deep savings without
11 requiring a lot of costly and time-consuming analysis.
12 That point is well taken.

13 You know, this approach is currently underway in
14 the Calculated Incentive Programs with the utilities.
15 We look forward to seeing and evaluating the success and
16 incorporating the appropriate elements.

17 You know, there are right now, and Simon can
18 back me up on this, if he likes, a lot of really
19 exciting things that are just rolling out in this cycle
20 in the utility program. And much of 758 is going to be
21 key at looking at seeing what is working and making sure
22 that that gets carried forward, or suggesting that that
23 gets carried forward.

24 One of the elements that we've seen work in some
25 municipalities and is now coming to Southern California

1 is job order contracting. Job order contracting is a
2 process that ensures that the scope and the costs of the
3 measures are well-defined before the project begins.

4 The ability to confidently predict costs and
5 have a good understanding of the likely outcome of what
6 you're spending money on is indispensable, I think, for
7 building confidence in these target segments.

8 These are segments in which it's not easy to
9 gain confidence and it's very fast to lose it. So, we
10 want to make sure that whatever we're putting forward is
11 well-bounded and well-understood.

12 And Keith's going to talk a little bit more to
13 that in the afternoon's presentation.

14 You know, part of the piloting -- excuse me --
15 part of the piloting process -- I could have given
16 myself an easier sentence there -- is geared toward
17 understanding both the type and the level of detail that
18 is needed to support a decision for the customers in the
19 target segments.

20 You know, it's kind of an amorphous term, this
21 decision support, but I think we really do need to
22 understand not only the level of decision support, but
23 the "levels" of decision supports and what types are
24 going to be required for which segments because that's
25 going to allow us to gain the confidence of the

1 customers.

2 You know, we're going to lose confidence if we
3 over-shoot on either side. You know, we will have
4 success if we can strike a good balance between either
5 leaving questions unanswered on one side, and over-
6 selling the upgrade project on the other, talking past
7 the customer and telling them more than what they need
8 or care about.

9 And, finally, you know, standardization.
10 There's a discussion of stackable credentialing and
11 making sure that the right person has the right skill
12 set for the right job.

13 We need to have standardization on the level of
14 expertise that's found in the implementation and the
15 implementers of these upgrade programs.

16 Having certifications that show proficiency also
17 provides a very needed element in the market, which is
18 helping to assure that there is a more level playing
19 field. You know, we don't want the jobs to be low bid
20 by somebody that can't quite do the work, or finds out
21 halfway through that the work is not what they thought
22 it was going to be.

23 Having certifications that shows this
24 proficiency allow for a more level playing field. It's
25 one in which the low bid will carry with it a confidence

1 that the contractor bidding on the job will be able to
2 do it right the first time.

3 You know, these sort of stackable credentials
4 serve a secondary purpose in that they're going to help
5 enable a career path for building performance
6 practitioners that want to advance and really help
7 prevent a race to the bottom in terms of the quality of
8 work, and also the quality of outcomes.

9 And that's all that I've got on prepared notes,
10 but I'd be happy to take any comments.

11 MR. GUSTAVSON: My name is Dale Gustavson and
12 this comment is being made in my role as Chief of Staff
13 of the Western HVAC Performance Alliance.

14 I wanted to make note of -- I just want to
15 address some information at the bottom of page 50, and
16 the top of page 51 that has to do with identifying
17 certifications.

18 And so the first comment is, and I realize
19 there's kind of a slippery slope with what I'm saying,
20 but there's a mention of two certifications in the
21 paragraph and there are many other certifications, and
22 the paragraph says that.

23 But I wanted to use that as a jumping off point
24 for the fact that we know what those certifications are.
25 And when I say we, the Performance Alliance does, as

1 most, if not all of them are actually members of the
2 Performance Alliance and have been working in working
3 groups not only to identify what certifications that
4 exist that address energy efficiency in the HVAC sector,
5 they're now beginning, in one working group that's just
6 starting back up, to catalogue each individual
7 certification from the certifying bodies. And trying to
8 catalogue those knowledge bases that under-gird those
9 specific certifications.

10 And going further and trying to determine where
11 there is alignment in facility management
12 certifications, and commissioning certifications that
13 address HVAC.

14 So, they would be delighted to find out they
15 have a new customer for their work. All of this is
16 volunteer work. It's not just the certifying bodies,
17 themselves, but other associations that are engaged in
18 this.

19 And quite often these volunteers are doing it
20 because they think it's the right thing to do. And as
21 staff for the Alliance, we try to find them a customer.
22 And it sounds to me like AB 758 is a customer. So,
23 thank you.

24 MR. REGNIER: Thank you for the comment. I know
25 we've been playing e-mail tag and I'm glad we've closed

1 that loop.

2 MR. RAY: Bruce Ray with Johns Manville, again.

3 I just want to give a couple of very quick, general
4 comments. Very much appreciate the Draft Action Plan
5 and the approach.

6 One of the things that I think is very important
7 in the approach is to have the no regrets, then the
8 voluntary, and then the mandatory after that.

9 Because I think what you're trying to get at,
10 ultimately, is market transformation. And you can't do
11 that unless you have a lot of data, a lot of
12 information, a lot of educated people concerning
13 options, programs, et cetera.

14 And then you also need to have, of course, the
15 trained workforce. So, all of that is kind of the
16 foundation for all of the programs that are yet to come.

17 I think, as you know, as I mentioned earlier
18 Johns Manville is a Berkshire Hathaway Company,
19 headquarters in Denver, Colorado. Our focus here is
20 primarily on building envelope insulation products.

21 These are not only building insulation for
22 attics and walls, but also for commercial roofs.

23 One of our very most important products is
24 roofing systems and then for new and retrofit roofs, and
25 insulation, as well as cool roof membranes and

1 applications.

2 We very much agree that the focus is really
3 important on small and medium commercial buildings.

4 We find in our travels that not only do these
5 buildings constitute the vast majority of commercial
6 buildings but, in addition, they seem to be really
7 under-served in terms of energy efficiency, retrofits
8 products attention, et cetera.

9 Whereas the big, sophisticated high rises are
10 well-served by ESCOs, medium and small just are not.

11 You often have, I guess, less sophisticated
12 owners and operators of those buildings, as well.

13 There's one, and I think it's very important,
14 we've submitted a lot of comments in this process
15 concerning residential, but on commercial it's very
16 important to understand a very critical distinction
17 between residential and commercial.

18 In a residence you can air seal and add
19 insulation pretty much anytime you ever want to, and so
20 you have a constant outreach to homeowners to get that
21 done.

22 In terms of adding additional insulation to
23 commercial buildings, the only -- and on the roof, the
24 only time you can ever really do that is when they're
25 doing a recover on the roof. And that occurs, depending

1 on the roof, approximately every 20 to 30 years. So
2 that if you miss that opportunity during a recover, you
3 lose that opportunity to upgrade a lot of the energy
4 efficiency performance of the roof for essentially a
5 generation.

6 And so I think a lot of the outreach has to be
7 done to get to those building owners and operators who
8 are in the process of investigating a roof recover, and
9 that's why I would urge you to include in your partners
10 roofing contractors, as well as roofing materials
11 manufacturers.

12 Because we know who is in the market for a roof
13 and if we have great information we can tell them,
14 instead of just recovering with your existing insulation
15 it's a very small additional cost to put in, say,
16 another couple inches of roofing insulation. But it can
17 only be done at that very critical moment in time. And
18 if we get to the decision maker at that time, let them
19 know, then we can do it.

20 COMMISSIONER MC ALLISTER: So, I think that's a
21 great point. And I actually want to drill another level
22 on that. So, could that -- at that moment, for that
23 roofing contractor, could they also be enlisted or
24 could -- you know, what hook could be built into that,
25 kind of a low-cost, highly efficiency built that could

1 be built into that transaction.

2 And let's say that we get that roofer on board
3 and they're selling an efficiency product and they're
4 able to make that sale, and they're able to argue
5 persuasively to the customer to buy into that, how do we
6 then help that touch to the customer get them on the
7 pathway to oh, gosh, next year I'm going to take my
8 packaging that's on my chiller, or whatever, and sort of
9 get them down the road to more comprehensive or, you
10 know, the next measures that they might do for energy
11 efficiency.

12 If we're going to sort of take, initially, a
13 single or a non -- you know, a single measure or a non-
14 comprehensive approach, how do we sort of build it
15 longitudinally versus all at once, and build that
16 knowledge base in the customer?

17 MR. RAY: Well, I think part of it, again, is to
18 bring in the roofing contractors as an important partner
19 in all of this, and to train them and let them -- give
20 them a basic level of knowledge and understanding
21 concerning what other systems might be available for
22 upgrade.

23 Because I'll tell you, one of the few groups of
24 people that spend lots of times -- lots of time on the
25 roofs of commercial buildings are these roofing

1 contractors.

2 And if we can train them, educate them to spot
3 the issues, not necessarily to do an advanced audit or
4 anything like that, but if they can see all the issues
5 that are present and have a checklist of things that the
6 owner should be looking into, and knowledge of the basic
7 programs we can marry those two up.

8 Because, you know, the problem is a lot of times
9 the roofers are out there only when there's a problem or
10 when there's been a big failure of the roof and they
11 have to act quickly.

12 And so it's a good time because they're ready to
13 spend some money.

14 And let me just -- I'll give it to you so you
15 can look at it. This is isofoam insulation. This is
16 the type of insulation that's on probably 90 percent of
17 commercial roofs.

18 COMMISSIONER MC ALLISTER: This doesn't have a
19 particular brand associated with it, does it?

20 (Laughter)

21 (Off-mic comment: "There's a website on there,
22 too."

23 MR. RAY: No, no, and that is the commercial
24 product and I'll just -- so you have it.

25 MS. BROOK: So, actually, one thing I wanted to

1 ask you -- can you hear me?

2 One thing that I wanted to ask you is where is
3 the gap between our building code requirements for
4 retrofits and what we need to do to get to scale on the
5 type of retrofits that you're talking about?

6 So, what's not working? We think we have pretty
7 aggressive retrofit requirements in the standards to do
8 a cool roof or, you know, an upgrade energy efficiency-
9 wise. Is it just not aggressive enough or is it just
10 the permit's not getting pulled, or what's the real
11 issue there?

12 COMMISSIONER MC ALLISTER: Yeah, actually, so
13 we've had a lot of conversation the other day about
14 permitting and it tended to be on the residential side.
15 And I'm wondering if we have similar issues on the
16 commercial side so let's --

17 MR. ASHUCKIAN: We do have an open session at
18 the end.

19 COMMISSIONER MC ALLISTER: Yeah, let's make sure
20 we talk about that in the various commercial settings,
21 as well.

22 MR. RAY: And just so you know, it might so it's
23 not -- let me just give you a little sample here of what
24 kind of a typical older roof might look like and you can
25 see some of the challenges.

1 MR. REGNIER: And I would note that in one of
2 the initiatives we are looking at making sure that we're
3 getting in at trigger points, good times for projects.
4 So we definitely appreciate you bringing that up.

5 MR. RAY: That would be great. There is one
6 retrofit for these small and medium commercial buildings
7 that have traditional roofs, that can be done anytime,
8 and can get be done cost effectively. And that is to
9 convert the existing dark roof to a Title 24 compliant
10 cool roof.

11 And this can be done primarily through a roll or
12 applied coating that can be, as I said, very quickly and
13 cost effectively done.

14 And we know that, just as an example, I think
15 there is a cool roof energy savings calculator that
16 Oakridge National Laboratory developed with Lawrence
17 Berkeley National Laboratory that will tell you, you
18 know, based on various inputs how much energy can be
19 saved by converting from a traditional dark roof to a
20 Title 24 or a cool roof.

21 The other thing about that is that I know that
22 there was a case study done, I think it was done by
23 Lawrence Berkeley National Laboratory. And according to
24 their case study, converting a traditional black built-
25 up roof, you know, with the usual tar on top and

1 asphalt, it's overall I think there was an 11 percent
2 cooling energy savings.

3 And there was also, which is very important, is
4 a 14 percent peak savings on that. So, that's very
5 important, of course.

6 The important thing about cool roofs, too, is
7 that it has an impact not only with the building
8 occupants in terms of the owner and the lower operating
9 costs, and the cooler comfort of the building occupants,
10 it also has an impact of cooling the surrounding area
11 and helping to eliminate the urban heat island effect,
12 which then will help drive down cooling demand in other
13 buildings, as well.

14 So, it has a lot of promise to really help and I
15 think it's something that can be done essentially any
16 time. And it is a -- the good part about it is it's a
17 low-tech solution and it is essentially more like a
18 cookie cutter solution that could be standardized across
19 all medium and small commercial roofs.

20 MR. ASHUCKIAN: Thank you.

21 MR. RAY: Thank you.

22 MR. ASHUCKIAN: I believe the gentleman from
23 SoCal Gas might have been waiting to speak. That's
24 Bruce --

25 COMMISSIONER MC ALLISTER: Bruce, can you give a

1 card to the reporter?

2 MR. JOHNSON: Scott Johnson, again. As far as
3 what he's talking about and -- contractors, themselves,
4 maybe need some cross-training, some competency
5 training, building inspectors.

6 Because what he was talking about, what I see
7 out there is the residential application.

8 About one out of ten of, you know, the roofer's
9 going out to re-roof and they actually put in a radiant
10 barrier, about one out of ten roofs that I see they
11 leave the space sheeting down and they put the radiant
12 barrier back on it, and the infrared intensity actually
13 gets worse.

14 So, anyway, see I told you I'd be quick.

15 MR. GOFF: Okay, Christopher Goff, again, from
16 the Southern California Gas Company.

17 I enjoyed your presentation, Justin, and I'm
18 hearing, in fact these two last presentations I thought
19 were great because they emphasized standardization.

20 And one of the things that we're looking at is
21 structuring our programs that we offer to customers sort
22 of in compliance with ISO 50,001.

23 I don't know if people at the table are familiar
24 ISO 50,001, but it's based on a prior experience that I
25 had where an account executive asked me to come to an

1 industrial customer and do a detailed audit, which I
2 did.

3 And the customer, he was a very, very bright
4 guy, exceptionally bright, but he wasn't an energy guy,
5 he was a businessman.

6 But when I went back to revisit him and go
7 through the details I said, you know, have you had a
8 chance to digest the information that I presented? He
9 said, yeah, as a matter of fact I have, which surprised
10 me because usually you go in and customers would say,
11 okay, let's go through the audit. And I said, well,
12 could you tell me what you've done?

13 And he said, yeah, actually, we started doing
14 some of the things that you recommended. And he said
15 I'm saving over \$2,000 a month.

16 And I said, well, what have you done? And he
17 said just some of the behavioral stuff.

18 As a matter of fact, we did a flyer on this
19 guy's business and we didn't have a mechanism to claim
20 the therm savings, the energy savings.

21 But, you know, if you look at -- and I've heard
22 people up here mention Department of Energy, the USEPA,
23 and they've got some fantastic information and some
24 really very good standardized tools that are accepted
25 not just nationally, they're accepted globally.

1 India is training their people on DOE tools.
2 China is training their manufacturing sector using DOE
3 tools. So, they're using our tools to really beat the
4 pants of our industry.

5 COMMISSIONER MC ALLISTER: That's your tax
6 dollars at work.

7 MR. GOFF: Pardon me?

8 COMMISSIONER MC ALLISTER: Your tax dollars at
9 work.

10 (Laughter)

11 MR. GOFF: Well, but I think what --

12 CHAIRPERSON WEISENMILLER: Well, as the
13 Governor's guy on energy in China, that's good news.

14 MR. REGNIER: There's no border on the
15 atmosphere.

16 MR. GOFF: Understandable, but I'd rather have
17 the paychecks here because, quite frankly, I want people
18 who can pay their bills.

19 So, you know, and again I liked what I'm hearing
20 about standardization and I like what I'm hearing about,
21 you know, training customers and having utilities, or
22 vendors, or consultants provide a good, standardized
23 solution that everybody buys into.

24 It's really this is some of the best things that
25 I've heard in a while. Of course, I'm not -- I don't go

1 to every meeting. But, again, having a behavioral
2 mechanism to help document and be able to claim savings,
3 and show customers how they've reduced their carbon
4 footprint I think is really -- it's really a great --
5 it's the next step.

6 You know, because we don't just want to give out
7 rebates. We want to help show customers how energy
8 efficiency can provide savings, grow jobs and reduce
9 carbon and we have been doing that over the last five
10 years.

11 But I think this is really a fantastic direction
12 for both Commissions to head into.

13 CHAIRPERSON WEISENMILLER: I just want to make
14 sure of one thing, and also I want to encourage people
15 to think about, and talk about, and get in the record or
16 in your written comments.

17 Martha mentioned that one of the goals we have
18 is trying to get to scale. Now, obviously, it gets the
19 question of what does that mean in terms of residential
20 and commercial. How many projects do we really have to
21 be targeting per year, or per month, you know, to really
22 get to quote/unquote scale?

23 And so, particularly as we struggle with the
24 goals going forward, it's going to be really important
25 to get the best thinking we can on what it's going to

1 take to get to scale in residential and commercial.

2 COMMISSIONER MC ALLISTER: I'll jump on there.

3 One of the reasons we've opened the box on a lot of new
4 ideas here is that, you know, just to build on what the
5 Chair said, you know, how many actual projects are
6 happening right now at this moment?

7 And you know, the sort of comprehensive
8 retrofits that we've been focused on for a few years I
9 think are building a case in a lot of important ways,
10 and developing some cutting edge contractors that do
11 comprehensive upgrades.

12 And that's a real sort of -- those are shiny
13 examples, you know, those great projects, you know, the
14 zero net energy that was recently inaugurated in San
15 Leandro. You know, comprehensive upgrades where we can
16 really develop the case for aggressive energy
17 efficiency.

18 But at the same time there's a -- you know, the
19 vast majority in the current marketplace is plug and
20 chug replacement, you know, kind of just updating
21 buildings.

22 And we, collectively here, who are interested in
23 energy efficiency, we're not touching those projects.

24 And often the local building department isn't even
25 touching those projects.

1 And, you know, I'd love to get a better sense of
2 that in the small/medium space because I think it's an
3 issue.

4 So, we've got to figure out a way to reach into
5 that existing flow of projects and have some influence,
6 and start to build a case much more broadly. And I
7 think if we look at our goals and the percentage of --
8 State policy and it says, you know, we need to get this
9 kind of energy reduction, this kind of carbon reduction,
10 you know, we really want to make the case for all cost-
11 effective energy efficiency, we've got to figure out a
12 way to start that conversation with every single
13 customer we possibly can, every single building we
14 possibly can.

15 So that when they are going to do a routine
16 upgrade, or routine maintenance, or a reactive change
17 out of a piece of equipment that they actually have
18 information that's going to start to steer the boat in
19 the right direction.

20 And I think if you back out the numbers of what
21 those goals have to be, we just need orders of
22 magnitude, greater project flow that takes energy
23 efficiency into account than we currently have in the
24 marketplace.

25 And so to the Chair's point, if folks have --

1 you know, that's going to vary by region, by building
2 type.

3 And really focusing on what is -- you know, what
4 are reasonable goals, even if they're stretch goals, and
5 then what sort of are the milestones along the way that
6 we need to hit? Like we really need to have a broader
7 conversation about that because we don't want to just
8 pull numbers out of the air, we don't want to have
9 stretch goals that are too heavy duty.

10 But we do want to really challenge ourselves to
11 get it right and work with all of you to try to really
12 push the envelope on this.

13 MS. NEFF: Sara Neff, I also want to say that
14 I'm also here as a member of BOMA GLA. I wanted to say
15 a couple of things.

16 One is vendors don't very much like to pitch on
17 small and medium buildings because I don't think the
18 incentives are typically worth it. It's on a per-
19 building basis.

20 If there was like the LADWP feed-in tariff for
21 solar that has a special traunch just for small
22 projects, and I think that's why those projects are
23 going forward, so just treating those projects just
24 differently depending on square footage when you fill
25 out those rebate applications.

1 And I wanted to -- oh, demand response, those
2 are great dollars that are not particularly lock -- or
3 they're pretty locked out for small buildings because
4 they don't have the thermal mass to cut load and they're
5 quite afraid of it.

6 But if there was some way to be able to unlock
7 those dollars, I think that would be really important
8 because those dollars are already there and not being
9 used.

10 And the final is we do a lot of pilots of energy
11 efficiency programs in my buildings, and that's
12 fantastic and those pilots are free. But then once the
13 pilots are done and successful, that's sort of the last
14 we hear of it and that's one of the reasons things don't
15 scale.

16 If there are programs specifically there to
17 address, okay, we did a successful pilot of USE, SDG&E,
18 PG&E and now let's scale it to your portfolio.

19 And if there was really an in-place mechanism to
20 take a successful pilot to scale because usually it's
21 like, well, the pilot was successful, clearly you're
22 going to scale it on your own because we've proven it's
23 such a good idea typically doesn't happen.

24 MR. REGNIER: Right.

25 MS. NEFF: So, really focusing on pilot to scale

1 is, I think, where we need to be to make a big
2 difference.

3 COMMISSIONER MC ALLISTER: Well, I guess, how
4 can BOMA help do that? Like if BOMA -- BOMA is such an
5 influential organization and, you know, I've worked with
6 them in different regions but certainly, you know,
7 across the nation.

8 You know, I guess part of it is messaging and
9 part of it is -- I mean to Simon's original point
10 earlier this morning about cost effectiveness, sort of
11 sometimes a pilot is we're going to throw quite a bit of
12 resources at this in a way that it's okay at the pilot
13 level, but it's not truly cost effective with those
14 costs at scale.

15 MS. NEFF: Yeah, I wouldn't --

16 COMMISSIONER MC ALLISTER: So the next step is
17 we've got to figure out how to make it more efficiency
18 resource wise, and in order to scale. And so there's a
19 balance there that I think that EM&E often informs.

20 And maybe it doesn't make the cut and doesn't
21 make it into the next portfolio.

22 So, we want to figure out how to take those good
23 ideas and sort of have really a look at how we can --
24 you know, the best ideas we can continue then, and
25 partner with industry to bring some resources to it so

1 that it can work.

2 MS. NEFF: Well, in terms of BOMA, I mean we
3 could talk about, you know, if one member has a
4 successful pilot, and then as that pilot is happening
5 making sure that there's other people signed up, too,
6 and the incentives are lined for stage two. Since we
7 all know each other and we all know each other's
8 buildings we can figure out, you know, okay, you had
9 this great pilot here. My buildings are like that, too.
10 If there's incentive dollars in place then it's a pretty
11 smooth mechanism and maybe we can go on.

12 Because, believe me, I know people in my job who
13 literally call every project a pilot because they've
14 figured out that that's the way they can get fee money.

15 And any time they say all right, now we're
16 expanding, then all of the sudden the coffers shut down.
17 So, yes, pilot to scale would be great and BOMA would be
18 happy to talk with you about how we can make the
19 incentives work for our constraints.

20 Especially, I also want to say in terms of tax,
21 I'm in a real estate investment trust and so we can take
22 no tax incentives. And so, tax-based incentives are
23 utterly useless to us and many people like me.

24 COMMISSIONER MC ALLISTER: You don't have any
25 partners that have tax equity that they could --

1 MS. NEFF: Our taxable rate subsidiary is not
2 large enough so it doesn't -- it wouldn't work. And
3 even a third party taking it, it comes as bad income to
4 us, it's highly problematic. That's why the on-bill
5 works so much better.

6 MR. ASHUCKIAN: So, we have a couple of comments
7 from the web, I think we're going to go to the web, now.

8 Eric Emblem?

9 MR. EMBLEM: Hi, this is Eric Emblem and I'm
10 representing the joint --

11 MR. ASHUCKIAN: Can you speak up a little?
12 Eric, we can barely hear you.

13 MR. EMBLEM: Can you hear me better now?

14 MR. ASHUCKIAN: Better.

15 MR. EMBLEM: Is that better?

16 MR. ASHUCKIAN: That's better.

17 MR. EMBLEM: Yeah, I'm Eric Emblem and I
18 represent the Joint Committee on Energy and
19 Environmental Policy.

20 We have 600 HVAC contractors and 25,000 workers
21 in the State of California.

22 I also serve on the Western Performance
23 Alliance, HVAC Performance Alliance Executive Committee
24 and collaborate a lot with Mr. Gustavson and his worthy
25 crew.

1 And I also worked very diligently on the
2 Workforce Education and Training Subcommittee on tasks
3 one and two from the Statewide Long-Term Plan.

4 Just a couple points, I think this is -- again,
5 I think we're moving ahead and I like the program as
6 it's being laid out, and there's just a lot of real good
7 stuff that's been presented.

8 A couple of things on workforce education and
9 training I think that need to be included in the plan,
10 that I think are kind of glaringly absent.

11 One is that there's about 30,000 current workers
12 in apprenticeship and journeyman upgrade classes in the
13 State of California between the Sheet metal Workers,
14 United Association of Plumbers and Pipefitters, and the
15 IBW Electricians.

16 And they are providing energy efficiency
17 training and upgrade training, and building, auditing in
18 all three crafts. And it's just not mentioned in the
19 report. I think we need to talk about that.

20 And when it comes to certifications, obviously,
21 there's a whole lot of certifications out there and
22 there's a lot of really good people that are working and
23 collaborating with the Western Performance Alliance in
24 establishing some guidelines, and some suggestions on
25 those. And I think that it's still a work in progress.

1 But the apprenticeship, as it is today, has been
2 recognized and is certified through the Division of
3 Apprentice Standards for decades, you know, almost 100
4 years. And we need to rely on them and to do whatever
5 we can to collaborate with them between the Energy
6 Commission, the Public Utility Commission and the
7 industry to springboard off of those programs and
8 utilize them for a successful implementation of AB 758.

9 So, thank you very much for talking. I want to
10 thank Martha. I think you're doing a great job. And
11 the Energy Commission and Commissioner McAllister, my
12 hat's off to you. You're doing great, thank you.

13 MR. ASHUCKIAN: Thank you.

14 I have one more, George Nesbitt.

15 MR. NESBITT: Can you hear me?

16 MR. ASHUCKIAN: Yeah.

17 MR. NESBITT: Yeah, George Nesbitt, HERS rater.
18 A couple of things, certifications, I'm burned out on
19 certifications. I have a bunch. There are more that I
20 need or should have based on various requirements.

21 But the problem is there's often duplication so
22 I'm being forced to get multiple certifications that
23 overlap, and that's not very useful to me.

24 Then we have program requirements, like most of
25 the new construction programs, the utilities recognize

1 the current CEPE to do energy modeling, yet we have
2 other certifications under Title 20, and the HERS
3 Regulation, Whole House Rater and Energy Analyst that
4 are not recognized, that are equal to or perhaps even
5 better than the current designation.

6 So, if we're going to have requirements that you
7 have a certification, we need to recognize all of the
8 relevant certifications and accept all of them so we
9 don't have to duplicate.

10 And it would be interesting, from Dale's effort
11 with these various organizations and certification's
12 working together to see whether each of them align their
13 requirements so that they actually are about, basically,
14 the same thing, and/or whether they will consolidate and
15 eliminate some of the duplication.

16 So, we either need to recognize all and/or we
17 need to say this is the certification you have to have,
18 the one that we will accept and then drive the market to
19 it.

20 And then the issue of scale, and I've been
21 talking about this a lot, and actually been talking for
22 years. If we want to get to scale, we have to take
23 advantage of all of the projects that are already
24 happening.

25 And I think the Johns Manville, as well as Scott

1 Johnson's comments on roofing are great examples of lost
2 opportunities where roofers -- you know, you've got a
3 project that's going to happen. It's an opportunity.
4 If you don't make the right decision, you've blown it
5 for a couple decades and/or made things worse.

6 So, training, we have to train essentially all
7 of the different trades to recognize when what they are
8 called in to do is an opportunity, or a potential loss
9 opportunity, or how to do their job in a way that
10 doesn't screw up the whole.

11 But to really pull it together in the end, we
12 also need the broader, general kind of audit, someone in
13 the big picture, and the client having a roadmap, a
14 picture of where they can or should go with their
15 buildings. So that when these opportunities of the roof
16 leaks come up that they're already primed to make the
17 right decisions and not leave it to the individual
18 contractors. Thank you.

19 MR. ASHUCKIAN: Okay, thank you.

20 It is 12:15 and I think we're going to take our
21 lunch break now. And if you wouldn't mind coming back
22 and be ready to start at 1:30 promptly, thank you.

23 Oh, and be sure if you haven't signed in, yet,
24 to sign in so we have your name and contact information,
25 out of the door.

1 (Off the record at 12:15 p.m.)

2 (Resume at 1:36 p.m.)

3 MR. ASHUCKIAN: Keith is going to start the
4 afternoon off on Public Sector Leadership.

5 So, Keith, why don't you go ahead and get
6 started, thanks.

7 MR. ROBERTS: Good afternoon. My name's Keith
8 Roberts. I'm a Mechanical Engineer with the California
9 Energy Commission and I'm on the AB 758 Development
10 Team.

11 Today I'm providing a short tour of the Action
12 Plan's Voluntary Pathway 4 on Public Sector Leadership.

13 In this case, public sector leadership relates
14 to State government and local governments, although the
15 Federal government is providing some great tools in this
16 field, also.

17 At the State level, Governor Brown's Executive
18 Order B-1812 has tasked the State with improving
19 significantly the energy efficiency of its 10,000
20 buildings. The work is well under way and the Energy
21 Commission is participating closely on the effort.

22 At the local level, local governments have
23 implemented or are implementing some far-reaching
24 policies or programs. Some of these include San
25 Francisco's landmark Benchmark Disclosure and Audit

1 Ordinance.

2 The Southern California Regional Energy Network,
3 or SoCalREN is implementing a process whereby dozens of
4 local governments can achieve economies of scale and
5 energy efficiency improvement and upgrades for their
6 existing buildings by participating in a standardized
7 energy upgrade process.

8 And Berkeley has had residential and commercial
9 energy conservation ordinances on the book for years.

10 The next slide on overview. The heart of this
11 chapter is that State and local governments can lead by
12 example but, more than that, we can help each other.

13 We are following the progress of several
14 initiatives that local governments are implementing, in
15 addition to the ones previously mentioned. Stop Waste,
16 up in Alameda County is doing some interesting things.
17 And Fresno is also doing some cool stuff.

18 We're also hoping to develop some standardized
19 tools that were discussed earlier, that local
20 governments might choose to implement.

21 Some of these include the database that has been
22 talked about, voluntary benchmarking websites,
23 recommended policies and ordinances, and one other item
24 is a sustainability bid preference program.

25 The bottom line is that the government sector is

1 small, perhaps 2 to 4 percent of all buildings in the
2 State. And we hope to develop programs with our local
3 and Federal counterparts so that we can expand many of
4 those to the private sector.

5 (Off-mic question from audience)

6 MR. ROBERTS: That's an estimate of State and
7 local. No, the State has 110 million square feet of
8 space.

9 I don't know how many square feet of space the
10 local governments have.

11 The key strategy in this chapter, and actually
12 the only strategy is a fairly simple concept to
13 understand. The CEC is working with the State
14 Department of General Services to improve their 110
15 million square feet of space.

16 And although this is a huge task in many
17 respects, it's made a bit easier because it's owner-
18 occupied space. You know, we own our own 110 million
19 square feet.

20 This effort allows us to better understand the
21 issues that property owners face when considering
22 upgrade projects.

23 This also allows us to develop solutions to
24 problems encountered and scale those solutions to local
25 governments and the private sector.

1 As indicated earlier, the Energy Commission is
2 following the progress of many local programs to learn
3 lessons and to see if there are ways that they can be
4 scaled to other portions of the State.

5 Initiative 1 relates to no regrets strategy 1,
6 which was presented on Monday, in San Francisco, but
7 it's with respect to data and data acquisition.

8 We plan to either build a database or leverage
9 an existing Department of Energy database, SEED and/or
10 PBD, which was mentioned earlier by another speaker, to
11 collect and store energy use data for the State's 10,000
12 buildings and perhaps the State's 11,000 schools.
13 That's a new thing that we're looking at.

14 The database will also include information on
15 the building assets, energy audits that have been
16 performed, and energy upgrades that have been completed.

17 After the database has passed testing procedures
18 we will -- we hope to offer it to local governments and
19 the private sector.

20 Initiative 2 consists of building a voluntary
21 benchmarking application that will be made available on
22 a jurisdictional basis, perhaps by county.

23 The intent here is for willing residential and
24 nonresidential building owners to publicly disclose
25 their building's energy use, allow comparisons to peer

1 buildings, and to engender a competitive spirit within
2 communities that would encourage owners to improve their
3 building's performance.

4 This is perhaps a precursor to the mandatory
5 benchmarking and disclosure regulation that's covered
6 under another pathway.

7 Regarding Initiative 3, I'm very happy to say
8 that Initiative 3 has taken hold in the SoCalREN
9 territory. For those not familiar with job order
10 contracting, it's a method -- it's a competitively
11 bidding method somewhat -- for somewhat repeatable types
12 of projects.

13 They spend a lot of time on the front end
14 creating quality specifications, job task books, and
15 getting qualified energy auditors onto an on-call list.

16 The job order task book is then put out to bid
17 to obtain quality mechanical, electrical, and general
18 contractors that specialize in energy work.

19 Job order contracting's not for everything, or
20 it's not a one-size-fits-all concept, but it can help
21 the process.

22 The time that it takes up front, the additional
23 time that it takes up front is more than made up through
24 an expedited construction schedule and costs are lower
25 relatively to one-off energy upgrade projects.

1 In addition, economies of scale can reduce costs
2 further.

3 And we do hope that the SoCalREN experience can
4 allow the process to expand to schools, local
5 governments, and perhaps small and medium commercial
6 buildings.

7 Regarding Initiative 4, the landlord/tenant
8 relationship with respect to energy frequently results
9 in what is known as the split incentive.

10 Landlords don't want to improve the efficiency
11 of their buildings because -- because they have --
12 because the tenants pay the bills.

13 And the tenants don't want to upgrade the
14 efficiency of their buildings because they don't have a
15 long-term stake in the building.

16 Green leases clearly define what an energy
17 efficiency project is and clearly defines how cost and
18 benefits are shared between the tenant and the landlord
19 so that both have reasons to want to upgrade their
20 buildings.

21 We do hope to work with local governments to,
22 one, ensure that they use green lease principles when
23 they lease buildings for their own use. And we also
24 hope that some of our local government partners will
25 consider green lease ordinances for their jurisdictions.

1 And, finally, Initiative 5 builds upon
2 Initiative 1 in that the database that is developed is
3 then used to publicly disclose the energy use of State
4 buildings in an easily understandable format.

5 This has been a short tour of Voluntary Pathway
6 4, Public Sector Leadership. Now, if you folks have any
7 questions, perhaps we can answer them for you. That's
8 all.

9 Any questions?

10 MR. LANGSTON: Thank you, Don Langston with Aire
11 Rite. So, I'm just kind of intrigued by this 2 to 4
12 percent for the State and local governments. Does that
13 include the 11,000 schools in that --

14 MR. ROBERTS: No, it doesn't.

15 MR. LANGSTON: Okay, so the schools are handled
16 separately, okay.

17 And can you expand a little bit more on this
18 job, the project, on the scope of this because I've
19 never heard of this type of work.

20 MR. ROBERTS: Job order contracting?

21 MR. LANGSTON: Yes, sir.

22 MR. ROBERTS: Job order contracting was piloted
23 by the San Francisco Public -- well, actually, job order
24 contracting's been around for decades, but it's only
25 been used for energy efficiency work in the last few

1 years.

2 The San Francisco PUC got an ARRA contract in
3 2009 to pilot the concept for upgrades of San
4 Francisco's municipal buildings.

5 It's a concept developed by the -- well, I think
6 it was developed by -- well, I don't remember who it was
7 developed by, but it was back in the late '50s or early
8 '60s.

9 And it's a concept where you identify dozens, if
10 not hundreds of tasks, i.e., you know, you want to
11 replace 1 million BTU-per-hour boiler and the projected
12 cost is \$10,000 or whatever it is. Yeah, it's somewhat
13 like a means book, expect it's geared towards a certain
14 jurisdiction and they're -- the cost of materials for
15 that location and the labor rates for that location, the
16 task book, which can be several inches thick is then put
17 out to bid. The winning bidder is usually the person
18 that provides the lowest markup above the cost and it's
19 an expedited process where the energy auditor and the
20 selected contractors work together to implement the
21 projects.

22 The Energy Coalition, a local organization, is
23 working with SoCalREN to develop such a process in the
24 SoCalREN territory.

25 And you might talk to them about the experiences

1 they've had with the San Francisco PUC ARRA Project.

2 MS. PHUOC LE: Hi, Uyen Le, International
3 Brotherhood of Electrical Workers, Local Union 11. And
4 I just want to recommend that during kind of the study
5 process of looking at these different local programs
6 that you also look at the City of Los Angeles Municipal
7 Retrofit and Workforce Program.

8 It's an ordinance that was passed to retrofit
9 over a thousand publicly-owned buildings in the City of
10 L.A. They got a lot of ARRA money to do it.

11 And yesterday, the City Council also passed the
12 Green Retrofit Fund so that the savings from the program
13 can be reinvested into additional retrofit. So, there's
14 a financing piece that I think is important.

15 They've been implementing it since 2010-ish, so
16 there's a lot of experience on the implementation side
17 of what happens when there's so much deferred
18 maintenance that you're not actually getting the savings
19 you wanted.

20 Let's say half of the lights were out anyways,
21 and so you retrofit it and now all the lights work.
22 Even though each light is more efficient there are more
23 lights, or people didn't even want to be in, you know,
24 let's say a senior center because the lights didn't
25 work. And now everything's great and more people are

1 using it.

2 So, how do you measure these types of things in
3 the implementation process? And I think the City of
4 L.A.'s retrofit program is good for that.

5 They also -- it's called the Municipal Retrofit
6 and Workforce Program for a reason because it also
7 focuses on creating quality careers. So, not just jobs
8 that are so task specific that you may be what you want
9 in the short term, but these folks are being churned
10 through a system and not getting the types of career and
11 the career training they need, but really putting people
12 through a longer-term process.

13 So, I'd recommend looking at that program, but
14 also looking at how, once again, the financing, the
15 workforce implementation, the data tracking pieces are
16 so integrated on the implementation side. It takes time
17 for some of these to get off the ground and I think the
18 program at this point is probably mature enough to do
19 some of that tracking and question asking.

20 MR. ROBERTS: Okay, thank you.

21 Any other questions?

22 MR. ASHUCKIAN: Or comments.

23 MR. ROBERTS: Or comments.

24 MS. GOODHILL ROSEN: Hi, Gina Goodhill with
25 Global Green USA.

1 This is, I'm not sure, maybe more of a question.
2 But I really like the idea of using the public sector as
3 sort of a model for what can happen. I think that's
4 fantastic.

5 I would hope that we could -- some of the
6 suggestions under this section didn't seem to me to be
7 as ambitious as they could be. And I wanted to know,
8 have you thought of maybe using the public sector to
9 test rolling requirements?

10 So, something along the lines of every public
11 building in this territory, you know, by this year has
12 to be upgraded, or was built before this time, something
13 that really would get to every building in that sector
14 in a pretty timely manner, but would be kind of maybe
15 hard to implement immediately statewide.

16 I think that's the kind of pilot that would be
17 great to test in the public sector.

18 Something like green leases seems really great,
19 but I guess I was concerned about how often those
20 buildings actually turn over where you would really be
21 at a point where you would negotiating a new lease.

22 It doesn't seem like it would affect that many
23 buildings at the end of the day.

24 So, I would recommend that you look into rolling
25 requirements because it seems like a really ambitious,

1 you know, pilot that we could really do in this sector.

2 MR. ROBERTS: If you do have programs that you'd
3 like to see under the public sector leadership, I'd
4 encourage you to write them up and submit them as
5 comments.

6 MS. GOODHILL ROSEN: Yes, and we will be
7 submitting written comments.

8 MR. ROBERTS: Anything else or does anybody on
9 the panel want to say something? Okay.

10 Okay, I guess we'll go into the final
11 presentation. I think Martha Brook is going to be doing
12 that one.

13 MS. BROOK: Okay, this is another one that's
14 pretty straight forward and short, so we should get to
15 your comments and discussion pretty quickly.

16 So, this mandatory -- you know, proposed
17 mandatory approach would be for energy use disclosure
18 for the largest commercial and public buildings across
19 the State.

20 And when we mean energy use disclosure, we're
21 talking about annual public disclosure in comparison to
22 the AB 1103 type of disclosure which is just between the
23 two parties in a financial transaction. So, we're
24 talking about annual public disclosure.

25 So, public disclosure of building energy use has

1 been implemented in many countries and cities around the
2 globe, including seven U.S. cities.

3 Energy use disclosure creates transparency in
4 the marketplace and facilitates the market demand for
5 energy-efficient lease space.

6 And energy use disclosure of municipal buildings
7 provides information to the public about the buildings
8 that they visit and do business in, and it implements
9 this lead-by-example policy for public agency energy
10 efficiency that Keith was talking about in his
11 strategies.

12 And then the other thing that this disclosure
13 sets up is the opportunity for more policies to be set,
14 both in public organizations and in private
15 organizations that would sort of set a limit of what
16 type of lease space, you know, can be entered into.

17 So, once there's public disclosure then you can
18 say, you know, no energy use per square foot more than a
19 certain level, you know, could be leased by a public
20 entity or by a private entity. You could set policies
21 based on that energy use disclosure.

22 In 2012 the USEPA did an analysis of the Energy
23 Star Portfolio Manager benchmarked buildings and they
24 found that on average these buildings realized 2
25 percent, over 2 percent annual energy savings just by

1 basically awareness of the energy use in their
2 buildings.

3 And that the same, sort of continuation of that,
4 if they continued that benchmark over time that annual
5 savings rate gets bigger. So, if they start to look at
6 their longitudinal, you know, year after year, after
7 year they're building awareness and identifying
8 opportunities to save energy.

9 So, our key strategy then that we're proposing
10 in the Action Plan is to evaluate the need for and
11 feasibility of a statewide energy use disclosure program
12 for the largest commercial and municipal buildings in
13 California.

14 So, whereas there's been seven leading, you
15 know, kind of leader cities across the nation that have
16 adopted these disclosure policies, you know, the Energy
17 Commission staff's opinion is that California's always
18 been a leader, as a state, in energy efficiency, so it
19 seems like the right time to basically propose a
20 statewide disclosure program.

21 It would be the first in the nation for a whole
22 state to adopt such a policy, but it's really just
23 leveraging all of the great work that's been going on in
24 New York, and San Francisco, and Philadelphia, and
25 Washington D.C. and Seattle. I'm not remembering all

1 seven of them.

2 But, you know, every time we read one of our
3 energy efficiency newsletters there's another U.S. city
4 that's, you know, basically decided to implement this
5 energy use disclosure policy for the largest commercial
6 buildings.

7 So, the details of our strategy, the initiatives
8 are outlined as follows.

9 If mandatory approaches are deemed necessary and
10 feasible, we'd conduct a public workshop to evaluate the
11 pros and cons of such an approach.

12 Highlight and discuss the lessons learned and
13 best practices from those seven leadership cities across
14 the nation.

15 And we'd develop and track key metrics on the
16 readiness of the market in order to evaluate the need
17 for and timing of such a mandatory disclosure program.

18 We'd collaborate with State agencies to
19 encourage public buildings to be early leaders and
20 potentially disclose their energy use on a public
21 website, as Keith mentioned.

22 And we'd conduct public rulemaking if we get to
23 the stage where we are ready to develop a regulation,
24 with participation from all affected stakeholders to
25 establish the future requirements for a disclosure

1 program.

2 And then we'd also need to investigate the
3 resources needed to establish a publicly accessible
4 website to publish -- to do the disclosure part, to
5 publish the building energy use and energy performance
6 benchmarks.

7 And in all probability, take advantage of the
8 national database infrastructures that are being
9 developed through the Standard Energy Efficiency
10 Database that Keith mentioned, and has been established
11 by the U.S. Department of Energy.

12 So, that's all we have on this initiative and
13 we'd like to discuss any questions or comments that you
14 have about it.

15 MS. HANDY: Hi, Jessica Handy, again, with Code
16 Green Solutions, BOMA GLA and BOMA Cal, as well.

17 One of the bigger frustrations that building
18 owners have in San Francisco with the benchmarking
19 requirement is getting the cooperation of the tenants,
20 who have their own meters.

21 Seattle, I feel, I believe resolved this by
22 requiring the tenants to participate. The tenants have
23 to hand over the data and information. They have to by
24 the ordinance. They are compelled by the law, just as
25 the owners are.

1 And I think that if that isn't included, that
2 should be something that should be considered.

3 MS. BROOK: No, I think that's a very good
4 point. And we've run into those same issues with
5 implementing AB 1103, so we understand that they're real
6 and very, very important. And, really, a program can't
7 succeed without tackling those issues at the beginning.

8 MR. COHEN: David Cohen, Energy Coalition,
9 again.

10 I just, it's more of a comment or a gap, just
11 from working on the REN, the Regional Energy Network
12 program so closely, we've been referring to it as public
13 buildings, facilities, assets and infrastructure mostly
14 due to the fact that we're going after a lot of energy
15 savings through streetlight retrofits, pool pump
16 retrofits, well pump retrofits.

17 MS. BROOK: Okay.

18 MR. COHEN: There's a considerable amount of
19 savings there. So, in that sector I think that it makes
20 sense to possibly include those assets in with just the
21 facilities, themselves.

22 MS. BROOK: Okay.

23 MR. COHEN: Infrastructure -- it's facilities,
24 infrastructure and assets, and other assets.

25 MS. BROOK: Great, thanks. Yeah, I think that's

1 a good -- you know, always a good quagmire is where does
2 the boundary of the building end and what's really
3 covered in a building program versus, you know, an
4 energy efficiency program.

5 Any other questions or comments?

6 Right, great, so Barry Hooper, and Barry's been
7 a leader in this area with the San Francisco Disclosure
8 Program, and he's offering us -- to share his lessons
9 learned from their program so that if we -- and that
10 would certainly be something we would do in getting
11 ready, you know, in preparation for going forward with
12 this strategy.

13 So thank you, Barry.

14 Anybody else?

15 MR. ASHUCKIAN: I do have a short announcement.
16 Is Andrew Tuan Liu in the room? Apparently, he left his
17 credit card in the room and it's at the front desk.

18 Okay, so that -- that concludes our
19 presentations. And we had scheduled a break between the
20 presentations and the final session, but because we're
21 moving right along we're going to forego that last
22 break.

23 And so we're going to open it up, now, to
24 questions or comments regarding any part of the whole
25 Action Plan, regardless of the subject.

1 MR. BACHAND: Hi, this is Mike from CalCERTS.

2 Sometimes it takes more than two weeks to get
3 the stuff posted on your website, and we've only got
4 until July 12th for comments, and I'd like to review
5 some of the material, so can we sort of get it on there
6 quicker somehow?

7 (Off-mic comment)

8 MR. BACHAND: Thank you.

9 MR. REGNIER: For the folks remote, the deck
10 will be available next week and it will be -- the notice
11 will go out on the list serve letting you know the
12 materials are up.

13 MR. HELBING: Good afternoon. My name is Bob
14 Helbing. I want to thank you for giving us this
15 opportunity to meet with you.

16 I'm President of Air-Tro Heating and Air
17 Conditioning. I'm also currently serving as President
18 of the Institute of Heating and Air Conditioning
19 Industries. I was the Chairman of the Western HVAC
20 Performance Alliance, the commercial -- or I'm sorry,
21 Nonresidential Quality Installation Committee. Yeah,
22 don't want to get that wrong.

23 Okay, there were a couple of comments made by
24 members of the panel that I kind of wanted to build on.
25 One of the questions Commissioner McAllister asked is

1 how do we get the small- and medium-sized players
2 involved in this process?

3 If it's really not practical to get the energy
4 savings that is the goal of the Strategic Plan just by
5 working with State buildings, we need to throw a bigger
6 net.

7 There was another question during the
8 presentation by Johns Manville about the roofing that
9 California has very aggressive Title 24 requirements on
10 how roofs are to be built and why aren't those rules
11 being enforced?

12 And the third comment was if the current codes
13 read if you retrofit a lighting system so that more than
14 10 percent of the lights change, now you have to bring
15 the entire lighting system into compliance with code.
16 And that's causing a problem because building owners
17 won't retrofit anything because now they have to
18 retrofit everything.

19 Okay, so there are some perverse consequences to
20 heavy regulation.

21 Historically, the Energy Commission seems to
22 have worked with people involved in new construction. A
23 lot of the rules and regulations seem to be developed in
24 cooperation with consultants who are design mechanical
25 engineers. And up until about five years ago California

1 was a growth state. That was the easy, low-hanging
2 fruit. These people need certificates of occupancy.
3 They're not going to get into those buildings unless
4 they meet the code, so let's go there.

5 Okay, California nowadays is more of a mature
6 market. The retrofit area is really where the savings
7 are. Okay, the buildings we're talking about already
8 have certificates of occupancy. That big hammer of
9 compliance is gone, okay.

10 And the people who are doing the retrofit work
11 are not design engineers, they're contractors. And the
12 building officials they work with are not planners,
13 they're inspectors.

14 Now, currently, the 2008 Nonresidential
15 Standards Manual, and I use the word "manual"
16 generously, is 919 pages. This is really not something
17 you can carry around with you.

18 Now, if you're a design engineer or plan
19 checker, you have a bookshelf. You can put the two or
20 three volumes there.

21 The 2013 manual is going to be 1,400, 1,500
22 pages. Okay, and if you're targeting contractors and
23 building inspectors, they'll carry the Uniform
24 Mechanical Code with them, they'll have it out there in
25 the field with them. They'll read it and they'll apply

1 it.

2 But they are not going to bring this manual out
3 that the Energy Commission has come up with.

4 I think the UMC's what, 200 pages? And that's,
5 you know, a little format, pocket edition, okay.

6 So, I don't think enough serious thought has
7 gone into what the retrofit market is and who
8 participates in it.

9 I gave Martha a copy of the form that I
10 typically use to comply in commercial projects, which is
11 the MECH 1-C Alt form. It was designed by a friend of
12 mine, and a past president of IHOCKI, Bob Weismann, now
13 working with the California Energy Commission. And it's
14 one page, front and back.

15 That's what I fill out when I go to a building
16 department and that's what the building inspector looks
17 at, okay.

18 The current MEC forms for codes for 2013 run
19 about 60 pages, okay, and they're supposed to be filled
20 out in the field, by the guy in the roof measuring
21 outside air, static pressure drop, and so on.

22 Okay, my tax forms last year did not run 60
23 pages. I did not fill them out on a rooftop, next to a
24 piece of equipment. I didn't fill them out at all. I
25 paid my CPA to fill them out.

1 Now, I am a fourth generation contractor. I'm
2 also a third generation engineer. I'm a degreed
3 mechanical engineer from Cal Tech, and a registered
4 professional engineer in the State of California in
5 mechanical engineering and I still find this paperwork
6 daunting.

7 Most contractors don't have an engineering
8 background. Contractors typically get in the business
9 because they like working with hardware rather than
10 software. They've rather be on that rooftop than be in
11 an office.

12 This kind of compliance requirement is daunting
13 and it continues to get more daunting.

14 And we have Mike here from CalCERTs. CalCERTS
15 is the number one HERS provider in the State of
16 California. He sees I don't know how many thousands of
17 forms, and he tells me that the number of those forms
18 that apply to the commercial -- excuse me,
19 nonresidential sector is pretty much miniscule. It
20 barely registers on the page. That's with the current
21 regulations.

22 With the new regulations coming out I suspect
23 that compliance will become even more difficult.

24 Now, I would -- like I said, I want to thank you
25 for presenting this workshop. I would like to recommend

1 perhaps an additional workshop, one that really involves
2 work, meeting with members of the Energy Commission and
3 perhaps people who design the forms at the Building and
4 Safety Counter in the City of Sacramento, and with
5 contractor building officials there, watching while the
6 form designers actually complete the forms with the
7 building officials over the counter, so we can see what
8 is expected of us and the building officials can see
9 what is expected of them.

10 We would then adjourn to a rooftop nearby, and
11 with members of the Commission, with all of the
12 instrumentation that is specified in those 60 pages, on
13 a 110-degree day, take all of the required measurements,
14 complete all of the forms, return to the Building
15 Department and get final approval.

16 I think that would be a very useful exercise for
17 myself as a contractor, for the building officials so
18 they know what's expected of them, and I think it might
19 open some eyes with the Commission, as well.

20 COMMISSIONER MC ALLISTER: Thank you very, very
21 much for that. You know, my first response is that you
22 have got to be involved in the front end of the
23 development of the next round of Title 24, as well, so
24 we can start with these principles from the outset.

25 So, because we're between a rock and hard place

1 with respect -- so, I'm going to talk about new
2 construction just really quickly. You know, that's not
3 AB 758, but there's the spillover. And mostly you're
4 talking -- you know, you're talking about Title 24 which
5 spills over into the retrofit market.

6 We, you know, in some important ways are between
7 a rock and a hard place where we're asking the building
8 industry to push the envelope and, you know, pun
9 intended, on new construction. And, you know, there are
10 new technologies in there and we're trying to get them
11 into the marketplace as quickly as possible because we
12 have these long-term goals of getting to zero net energy
13 in residential by 2020, and nonresidential by 2030. Not
14 an easy lift.

15 And so that, you know, it becomes there are a
16 lot of detailed -- you know, I think the approach, sort
17 of following the traditional approach that the Title 24
18 development has taken, we end up going into a lot of
19 really detailed areas and that ends up panning out with
20 a fairly complex process.

21 And so, you know, it gets -- there comes to a
22 point where it gets to be unworkable and in the real
23 world there's just a disconnect with what people can do
24 and what's expected of them. And, you know, we can't
25 have that.

1 And so I think the -- we do need to step back
2 and kind of rethink, you know, the process, the design
3 process and the compliance process that mirrors it.

4 And so just in general I feel that that's a
5 really important sort of principle to take forward.
6 And, you know, we can start now with the implementation.
7 I mean, we're all -- you know, Martha in particular can
8 tell you how under the gun she is to get that done.

9 But just if we think longer term, as well, I
10 think that's just a principle that we need to keep in
11 mind.

12 And going back to some of the other comments
13 that have happened, you know, really -- that have come
14 in today that we've heard and definitely want to keep
15 going forward, you know, we need to approach this not --
16 you know, less like a regulation development process,
17 that sort of Dave alluded to this early today, and more
18 like a program that is being designed for usability.

19 You know, much of my career has been out there
20 in the world, you know, as a program administrator and
21 somewhat as a practitioner. Not just in the U.S., but
22 in other places. And I feel, you know, fairly competent
23 on the program design. You know, you have to make it
24 usable.

25 You know, the more requirements, the more

1 difficult the less compliance, and the less
2 participation. If you're trying to influence the market
3 and it's not participating, whose fault is that?

4 Well, it's the program designer, right, you made
5 it too hard.

6 So, there's really got to be sort of a meeting
7 of the minds on what's going to work in the real world.

8 And I think, you know, now I'm talking about AB
9 758. How are we going to get the marketplace to do
10 these things and what kind of support resources can we
11 reasonably provide that's going to help that happen?

12 So, you know, I would say that same thing we
13 need to, sort of as much as we can in the near term
14 apply it to Title 24 and the compliance with that.

15 But in the long term certainly think about how
16 to close the gap between expectation and reality.

17 MR. HELBING: I mean one of the things I talked
18 with Mike at CalCERTS about, this is over lunch, and he
19 said, well, Bob, what's your solution? I don't really
20 offer one. I don't envy the job of you Commissioners
21 and Commission staff.

22 I know the pressures you're under from the
23 Legislature, from the energy savings community, the
24 building community, everybody. It really does look like
25 ten pounds in a five-pound bag.

1 So, I would be delighted to be a part of the
2 process.

3 I was also telling Mike there's a one-page
4 letter that the Energy Commission wrote a decade ago
5 saying, you know, homeowners should get their ductwork
6 tested. I wrote that for Bill Pennington ten years ago
7 and he -- of course, he made changes to it, published
8 it.

9 I've tried to be a part of the process since it
10 began. Sometimes I think I've helped move the ball down
11 field, sometimes I try to throw a penalty flag and it
12 hasn't worked.

13 But I, myself as a contractor, and then the
14 Institute of Heating and Air Conditioning Industries,
15 always welcome to work with the Commission and provide
16 whatever assistance we can help.

17 MS. BROOK: So, I just wanted to -- as one of
18 the program managers for the 2013 standards, I just
19 wanted to chime in just a little bit.

20 I think your comments are awesome. I think that
21 it is a challenge to try to implement a very complex
22 code and to do it well.

23 I would absolutely agree with you that the focus
24 of the standards forever has been new construction and
25 we have to change that.

1 And I think we actually could put that in our
2 Action Plan that a future standards update really needs
3 to focus on existing buildings.

4 Because what happens, exactly what you said, we
5 just do -- we get all the stakeholders in the room for
6 new construction, and since the stakeholders aren't in
7 the room for existing buildings, we kind of do what we
8 propose to do because we're not hearing any objections
9 to what we're proposing to do.

10 So, but we -- and we claim savings for that.
11 We're claiming over 30 percent of the savings from the
12 standards for additions and alterations to existing
13 buildings. So, we expect great things, but we also need
14 to follow up with the right kind of implementation.

15 And this is where probably some of our codes and
16 standards partners in the utility arena can help us, you
17 know, basically digest the 1,400 pages of helpful
18 material into something that would work for the
19 contracting community.

20 I think that's a really great next step and I
21 actually think your next workshop proposal is a really
22 great -- I think that's a really good idea.

23 I got to tell you that --

24 MR. HELBING: No, no, put them on the roof when
25 it's 100 degrees, I want to see that.

1 MS. BROOK: Yeah, it's like remember we are
2 public servants, just keep that in mind so --

3 (Laughter)

4 MS. BROOK: But anyway, I think one of the
5 things that happens just at the staff level at the
6 Energy Commission is we know that compliance isn't
7 working. And so it's like this real natural thing that
8 says, okay, well, we're not getting compliance so we
9 need another form, right.

10 It's like we need to put the standards in the
11 form so that people understand what the requirements are
12 in the form because they're never going to read our
13 standards and they're never going to read our 1,400
14 pages.

15 And I understand that's a flawed mentally but --

16 MR. HELBING: I will describe it as the bees
17 will continue until compliance improves.

18 MS. BROOK: Yeah, so we have to get out of that
19 forms mentality. And I mean I scream about forms at the
20 Commission, but we don't have a good alternative right
21 now and we need to figure out what that alternative is.

22 Whether it's just performance testing and you
23 don't worry about the form, you know, we have to figure
24 all that out.

25 MR. HELBING: All right, thank you.

1 MR. BERNDT: Aaron Berndt with PG&E, just a
2 couple of quick comments.

3 First, want to say thank you, this has been a
4 very collaborative, productive participation and so
5 thanks for holding these workshops, and I'm happy to be
6 here.

7 Second, just wanted to comment quickly on
8 behavioral programs and approaches, we do have a cost-
9 effective residential behavior program. We are just
10 fine with ex post performance-based savings.

11 What we're looking really to do, particularly
12 for the nonresidential sector, is open up that savings
13 approach to make it more applicable to other areas, to
14 enable the innovative products and technologies that
15 vendors are coming up with, so that's one.

16 We're looking at leveraging that same approach
17 with other platforms, so home area networks, Smart
18 Thermostats. There's a lot of new technologies that
19 will be able to use those behavioral programs if we're
20 able to unlock sort of the constrictive approach now.
21 So, that's something I'm looking forward to continuing
22 the dialogue on and what the behavioral workshops were
23 starting to cover this week. Thanks.

24 MS. NEFF: Hi, Sara from Kilgore Realty and BOMA
25 L.A. again. I just wanted to say that one of the other

1 major barriers for adoption in small and commercial
2 buildings is legal fees for financing mechanisms, which
3 you can justify the cost for, for a half-million-dollar
4 project or more, even though PACE will go down to
5 \$50,000, which would be just about right for my little
6 buildings. Yet, it's \$20,000 in legal fees to get those
7 done.

8 So, until we can recoup the cost of the legal,
9 as well -- obviously, you don't want lawyers billing
10 infinite number of hours, but if there was some bucket
11 in which we could recoup the legal fee costs so we're
12 not just out that money.

13 You know, the seller lease I've been trying to
14 negotiate all day, I've already eaten up the first two
15 years of revenue from it just in the legal fees for this
16 process.

17 And I'm going to do it anyway because it's the
18 right thing to do. But that's a major barrier that I
19 haven't seen addressed.

20 So, financing good, but the legal fees often
21 make it just not possible.

22 COMMISSIONER MC ALLISTER: Are those activities
23 that you're paying lawyers to do actually things that
24 could be standardized and, therefore, kind of cut out
25 the middleman sort of thing or --

1 MS. NEFF: I hope so. I'm actually not sure.
2 Solar lease is a new territory for me, so I'm hoping
3 that maybe once I have one maybe I can do more, and then
4 it won't be so bad, so maybe if it was a little more
5 standardized.

6 But, you know, if I did maybe one PACE project
7 and then I could maybe do more PACE projects using the
8 same mechanism. But, you know, I look at Kilgore as,
9 you know, we believe in sustainability. You know, 32
10 percent of our portfolio is lead, 50 percent of it is
11 Energy Star. I mean we're doing this, we believe it to
12 our core and yet you don't see any PACE projects in my
13 portfolio.

14 COMMISSIONER MC ALLISTER: Yeah.

15 MS. NEFF: I mean that's a lot of that because
16 we're -- it took a long time for us to get, you know,
17 guidance on how that would be treated for us.

18 But then now it's just like, God, nobody wants
19 to give me 20 grand to do our legal at that point.

20 COMMISSIONER MC ALLISTER: So, it would be great
21 if you could sort of bullet a list of sort of those
22 issues in your now voluminous written comments.

23 (Laughter)

24 MS. NEFF: I love written comments, so it's
25 great.

1 COMMISSIONER MC ALLISTER: Yeah. Exactly, yeah,
2 you're going to hire a lawyer to write those comments,
3 right.

4 MS. NEFF: Yeah, I can have a lawyer for
5 \$25,000.

6 COMMISSIONER MC ALLISTER: I guess, so it's
7 interesting because I really -- I don't know that the
8 REITS have really been in the discussion on PACE that
9 much so --

10 MS. NEFF: We just started. So, Kilgore just
11 did -- they have maybe the most complicated PACE project
12 ever, where it was outside of PG&E territory, and also
13 had solar, and so they had to apply for a depreciation
14 and the whole thing. Yeah, there's not usually that --
15 but Simon Properties, which is retail, does --

16 COMMISSIONER MC ALLISTER: Which PACE program --
17 which PACE enabler are you going through?

18 MS. NEFF: Those were in San Francisco.

19 COMMISSIONER MC ALLISTER: Okay.

20 MS. NEFF: And Simon Properties I think is also
21 in Northern California. But please do not quote me on
22 that, although I know that's exactly what's happening.

23 (Laughter)

24 MS. NEFF: So, Simon Properties somewhere in
25 California.

1 COMMISSIONER MC ALLISTER: Okay. So, I mean
2 there are, in the local government context, where
3 they're doing different kinds of PPAs and, you know,
4 solar projects, they develop -- you know, they have
5 counsel and they develop, they have a whole pipeline of
6 projects and it's generally the same little group of law
7 firms that kind of knows how to do that.

8 MS. NEFF: Yeah.

9 COMMISSIONER MC ALLISTER: And I guess, you know
10 what -- if we had some volume then maybe those costs
11 would come down, and you could standardize things, and
12 maybe there's one firm or two firms that kind of emerge
13 as the folks who do that sort of thing.

14 So, I guess just having a sense of what the
15 scale might be in a REIT context would be good, whether
16 it's your company or, you know, the sort of as a whole.

17 MS. NEFF: I mean there's -- you know, as far as
18 REITS go I mean we have a whole -- you know, the REITS
19 are really trying to get involved on the sustainability
20 side. We disclose all of our data. You know, this
21 disclosure stuff doesn't even phase me because we have
22 to disclose everything to the GRESB. Every year our
23 investors look at it. There's indexes. In return
24 investors invest in us based solely on our disclosures.

25 So, I mean this is something we've been

1 intensely living and breathing for years now, it's very
2 hard. And so that part is fine but it's -- you know,
3 for those of us who are large companies.

4 But, yeah, there's other just logistical things,
5 it seems like, oh, we have this great free money, why
6 aren't you taking it? And there are reasons why we
7 can't.

8 COMMISSIONER MC ALLISTER: Yeah, I mean a lot of
9 this discussion we've been having all week is really
10 about transaction costs.

11 MS. NEFF: Yeah.

12 COMMISSIONER MC ALLISTER: I mean it really is.
13 I mean this is like one glaring example.

14 MS. NEFF: Yeah, and I haven't seen a high
15 transaction cost in the thing yet, so --

16 COMMISSIONER MC ALLISTER: Well, yeah, I'm the
17 economist member of the Commission so I can say those
18 things.

19 (Laughter)

20 COMMISSIONER MC ALLISTER: But, you know, I feel
21 like the overhead, you know, the whatever, but just
22 getting the skids nice and greased so we can get a
23 pipeline full and not have the same problem over, and
24 over, and over again, which is kind of where we've been
25 as we scale up this nascent set industries. And so, you

1 know, I think that's really what -- that's fundamentally
2 what we're trying to get done here is figure it out and
3 move forward and get the marketplace moving.

4 So, anyway, thanks for your input.

5 MR. ASHUCKIAN: We have Eric Emblem on the web
6 for a comment. Eric Emblem?

7 MR. EMBLEM: Yeah, this is Eric Emblem. Can you
8 hear me, now?

9 MR. ASHUCKIAN: Yeah.

10 MR. EMBLEM: Just a couple of things. Again, I
11 think the workshop has been excellent, great content.
12 But going back to thing that I hold near and dear and
13 that's the workforce. And one thing I failed to mention
14 earlier, that when looking at the mid-sized commercial
15 buildings and looking at how the public is -- you know,
16 who makes the encroach, usually, on discussing with them
17 issues with their systems and their building operations,
18 many times it is at the technician level, and/or a
19 salesman, a sales force person.

20 And the Western HVAC Performance Alliance spent
21 a significant amount of time working on an outline for
22 sales and workforce training in energy efficiency.

23 And I think as we look forward towards green
24 jobs, and working with the green jobs workforce, and we
25 look at the inspectors, and inspector training, which is

1 sorely needed, and then we also know that we need to do
2 some training in sales training on Title 24 in energy
3 efficiency.

4 In addition, we need to look at
5 retrocommissioning, and Martha brought that up earlier.
6 And I'd worked a few years ago with Southern California
7 Edison and PG&E on how we could cost-effectively do a
8 retrocommissioning program in these size buildings.

9 And it was real tough with the existing program
10 structure because there's so much engineering cost up
11 front that it made it very hard to work out under the
12 algorithms set by the PUC for doing energy commissioning
13 and retrocommissioning in these size buildings.

14 Which made it very evidence that the technicians
15 that are currently doing this type of work could
16 probably be upgraded or have upgrade training that would
17 position them to do some initial system or building
18 energy auditing that would be, you know, what I would
19 call an investment grade type of system on it, that
20 could be used and incentivized through the utilities.

21 And I think as we go forward and we look at
22 this, and how we implement AB 758, and consider the
23 workforce, and we look at the inspectors, and we look at
24 sales training, and we look at retrocommissioning
25 opportunities, I think that we should look at the green

1 workforce and also look at somehow creating these
2 programs and disseminating them through existing HVAC
3 training programs, and electrical training programs, and
4 including apprenticeship.

5 So, it's just something to kind of put in the
6 back our thinking cap and, again, I appreciate the
7 opportunity and it's been a great workshop. Thank you.

8 MR. ASHUCKIAN: Thank you.
9 Don.

10 MR. LANGSTON: Once again, I wanted to echo the
11 comments from everyone here and online. This has been
12 very productive. And thank you for bringing and getting
13 everyone together here. This is a great, I think,
14 learning experience.

15 It was mentioned earlier, before lunch, at the
16 previous workshops about some of the issues with code
17 enforcement. And Bob kind of alluded to some of that
18 before.

19 So, I think just from Bob Helbing's kind of
20 statement there's enough there to unpack for a workshop
21 all by itself. And I definitely would recommend Bob to
22 lead that.

23 (Laughter)

24 MR. LANGSTON: So, just a couple of things real
25 quick. The Western HVAC Performance Alliance is a very

1 natural vehicle for this group to engage with. Simon's
2 an integral part of that and has been just a great asset
3 for us.

4 I've been involved with it since actually before
5 it was formed in 2009, and we're seeing a lot of good
6 things coming out of it.

7 And I've talked to several people here,
8 individually, about that and would recommend just
9 further discussion on how you can integrate because the
10 goals are the same. And there's no reason to reinvent
11 the wheel because there's a lot of infrastructure
12 already in place that can really just be magnified in an
13 exponential way to move this thing forward.

14 But I can tell you that as a contractor that
15 covers about half the State of California, strictly in a
16 nonresidential/commercial environment that one of the
17 challenges that we have relates to codes.

18 Now, we always want to pull permits. We always
19 want to make sure that we go to our customer and tell
20 them that we want to pull a permit, we need to change
21 some air conditioning equipment.

22 Depending on the city, there's a wide variety of
23 how codes are enforced. Once again, it was mentioned
24 earlier about better training and resources available
25 for those code inspectors and you need that.

1 But the flip side is, as Bob mentioned earlier,
2 is that there are so many codes out there that you're
3 making it so onerous that a lot of people are just
4 going, you know what, come put it in on a Saturday. Or
5 they're just, you know, put this equipment in at some
6 other time. And not with us specifically, but I hear it
7 a lot.

8 And so building owners, especially in the
9 smaller, where they're fighting for every little thing,
10 when they have to -- when they have to pay \$5,000 above
11 and beyond a project for a structural review because the
12 new R-410 air conditioning unit is heavier, the value
13 proposition for the customer on that is nil.

14 Now, granted, we want to work safely. But when
15 they see a structural engineer have to get in for two,
16 three, four, five thousand dollars on top of the project
17 cost, they just see that. Then there's other permitting
18 fees.

19 So, it's just a lot of times the fees on some of
20 these projects can be as much as the equipment. So,
21 those are huge barriers.

22 And if we're trying to be able to upgrade our
23 customers with better quality equipment, that's another
24 barrier. So, I just wanted to throw that out there.

25 COMMISSIONER MC ALLISTER: I really appreciate

1 that and I want to just sort of make a very specific
2 request. You know, the no regrets strategy number 2 is
3 permitting support and code compliance. I believe
4 there's just the one strategy with seven or so -- six
5 initiatives under it.

6 Number 3 is educate and train contractors,
7 building departments, da, da, da, everybody about code,
8 right. So, I would posit and, you know, to Martha's
9 point, too, maybe we include in that point or add one
10 that says actively make efforts to streamline the code,
11 itself, rather than just go and educate people about the
12 complicated code, right.

13 So, that could be an initiative, with a long-
14 term impact for AB -- for this particular no regrets
15 strategy.

16 Also, you know, there are a bunch of initiatives
17 under all of these strategies throughout this document
18 and there's no way we're going to do every single one of
19 these initiatives. And so we really need folks to look
20 at all -- with a critical eye at these chapters and say,
21 okay, there's six things right now, maybe seven now in
22 no regrets strategy 2, which ones are the ones that
23 really are impactful.

24 So, I think carrots and sticks. Mostly carrots
25 would be great. But what kind of carrots are going to

1 work? What kind of tools are going to allow those
2 transaction costs to go down?

3 You know, is it streamlined permitting? It is a
4 statewide online tool that local governments can opt
5 into that helps -- you know, that they can receive some
6 assistance mapping their permitting processes and forms
7 onto?

8 We know that in solar, and energy efficiency, in
9 each measure every jurisdiction is different and, you
10 know, that drives contractors nuts.

11 But it's a local issue. It's not a State issue.
12 They're the ones who determine what they do, what their
13 fees are and what their processes are, et cetera. And
14 so, you know, the carrots are really, wholly appropriate
15 in that particular activity.

16 So, it's just really just a call to say, look,
17 this is going to work. This isn't so important. You
18 know, here are the top two, top three. You know, here's
19 really where we think you're going to get some bang for
20 your buck and have an impact.

21 You know, and in each of the chapters, depending
22 on your particular interest and area of expertise we
23 really need that feedback. Because, otherwise, we sort
24 of have a vacuum and we have to sort of, you know, go
25 like this and say, okay, well, we think this one's going

1 to work.

2 But we really need that feedback from you all
3 and all the stakeholders across the board. So, thanks
4 for your comments.

5 MR. ASHUCKIAN: We have a comment on the web,
6 Wayne Longdon (phonetic). Wayne Longdon?

7 MR. LONGDON: Is anybody still there? Hello?
8 Hello? Is anybody there?

9 MR. REGNIER: We're ready for you, Wayne.
10 Please proceed.

11 MR. LONGDON: Oh, I'm sorry, I typed in a
12 question, I thought you'd just read it, instead.

13 I just wanted to know -- first of all, thank you
14 very much. This has been very educational. I really
15 appreciate the efforts and the ability to remotely
16 connect.

17 I was just wondering, will the questions, and
18 the answers, and the comments, will that audio portion
19 be recorded and available anywhere?

20 Hello?

21 MR. ASHUCKIAN: Could you turn your speakerphone
22 off, please?

23 All the comments will be posted. All the
24 transcripts will be available online. All of the
25 presentations will be online, as well, and the

1 recording.

2 MR. ASHUCKIAN: Comments?

3 MS. PHUOC LE: Uyen Le, International
4 Brotherhood of Electrical Workers, Local Union 11.

5 And these are going to be around workforce, but
6 I think they're related to the other issues. And I
7 didn't read, really, anything or see anything about job
8 quality in the report. And I think that's something
9 important to put in there. I think that when you have
10 qualified workers they should be well compensated. And
11 when you have qualified workers you end up with a better
12 product.

13 So, just talking about job quality and what that
14 actually means in terms of not just a career path, but
15 in terms of compensating folks, having the jobs that
16 actually create good benefits for local communities,
17 it's going to be really important.

18 And just as far as a workforce strategy
19 generally, and folks have alluded to it before, training
20 is just one component, but really thinking about job
21 creation, right. Actually creating these jobs where you
22 can place people and making sure they're good jobs, so
23 that's job creation, the job quality, and then the third
24 piece would be job access.

25 You know, who can access these jobs, whether it

1 be existing workers that need to be up-skilled, entry
2 level workers, folks from the local community, et
3 cetera.

4 So, I would really emphasize job creation, which
5 often gets left out, that's integrated with job quality
6 and job access.

7 And the second piece I want to talk about, once
8 again just to emphasize Eric Emblem's point is I think
9 we do have a lot of capacity here in the State of
10 California to do the retrofit work.

11 I don't think we have a huge workforce gap. We
12 have apprenticeship programs that train very well-
13 qualified people. We need to recognize that these
14 skills are important foundationally.

15 You know, you want to have workers who have the
16 foundation and not just do the specific tasks. And I
17 think it's important to look at well-rounded training
18 programs that already provide this capacity and making
19 sure that they're well-integrated into these resource
20 programs and into the regulatory frameworks.

21 And we'd be happy to participate, thanks.

22 MR. ASHUCKIAN: Thank you.

23 Any other comments?

24 MR. COHEN: David Cohen, Energy Coalition, last
25 time.

1 (Laughter)

2 MR. COHEN: Promise. I just wanted to -- laugh
3 at that.

4 I wanted to just embellish a little about what
5 Commissioner McAllister was saying about the online
6 permit system.

7 And so, Energy Coalition has developed a system
8 that we're beta testing with City of Santa Monica and
9 City of Brea that actually matches the rebates available
10 at the time that a contractor or a homeowner is actually
11 pulling permits.

12 It's an interface software that taps into their
13 online permitting system.

14 But we're actually in conversations right now
15 with a package, online permitting system to actually
16 combine them as a joint product for smaller cities that
17 don't want to invest in a stand-alone system.

18 And it works both ways. If somebody's looking
19 for rebates then it could then tell you where your
20 permit information is, and then vice-versa.

21 So, it would sit on the city, the local
22 government website in their Department of Developmental
23 Services.

24 And so we will keep you -- we've got money
25 within our REN contract to expand it to up to five

1 cities, so we will keep you in the loop on that. So,
2 potentially, it could become a pilot for you for the
3 next pilot cycle.

4 COMMISSIONER MC ALLISTER: Great, thanks.

5 MR. COHEN: Thank you.

6 MR. ASHUCKIAN: Thank you. Let's go back to the
7 web, George Nesbitt.

8 MR. NESBITT: Can you hear me? Can you hear me?

9 MR. ASHUCKIAN: Yeah.

10 COMMISSIONER MC ALLISTER: Yes, we can.

11 MR. NESBITT: Okay, George Nesbitt, HERS rater.

12 I kind of want to hit on the code enforcement issue a
13 little more.

14 There are several issues to code enforcement.
15 One is a quality issue. So, we regulate something, we
16 mandate it and often what we have is the rush to the
17 bottom. It's do the least you can to meet the code, if
18 that.

19 And Berkeley is RICO, as mentioned earlier, so
20 they require things like, oh, you've got to have R-30
21 attic insulation. So, yeah, you get R-30 attic
22 insulation, assuming it's actually enforced. But you
23 don't get air ceiling, you don't get, necessarily,
24 quality attic insulation. You get the bare minimum to
25 meet the requirement.

1 And the other aspect of code enforcement is just
2 the lack of enforcement. And I think as someone pointed
3 out really well, the nonres manual is 1,000 pages, the
4 residential manual is over 500.

5 The code is too voluminous and in a way that
6 most people are, including -- especially, well, building
7 inspectors and even many people in the industry that
8 should, they will never read and understand the code,
9 yet they try to apply it or not.

10 So, I actually have a lot of ideas on how to
11 make what we already have digestible. And I've worked
12 on stuff. So, if anyone would like to throw money at me
13 I'd be happy because I'm doing it on my own.

14 So, then wanted to hit a little bit about
15 building disclosure and I think public disclosure of
16 energy use is important because what it brings it to is
17 when it's on the public level there's a social factor.
18 There's a competitive factor. Oh, we've got a lower
19 [sic] energy use, we look bad.

20 So, that can be a very important driver in
21 getting into deeper savings.

22 And there's been a lot of -- well, a lot more
23 discussion on disclosure and sort of operational rating,
24 or operational use rather than asset rating. But we
25 need them both. They complement each other. They give

1 us different answers. They each have their pluses and
2 their minuses, but the two of them together give us a
3 much better answer.

4 And one last thing on the code, sort of I think
5 Martha kind of brought up. We focus on new construction
6 when we develop so much of the code, but especially
7 residential code the vast majority of that applies to
8 existing buildings with, you know, a few minor
9 exceptions.

10 And, obviously, there are specific things that
11 when you do certain upgrades there are requirements that
12 only apply on the existing end.

13 And then also, often, we talk about code
14 compliance only linked to a permit, yet it's your legal
15 responsibility whether there's a permit or not and
16 whether it's being enforced or not.

17 You know, as professionals we have our legal
18 duty to comply. Thank you.

19 MR. ASHUCKIAN: Thank you.

20 COMMISSIONER MC ALLISTER: Thank you.

21 MR. GUSTAVSON: Dale Gustavson and this time I'm
22 speaking as Dale Gustavson, private citizen, and not
23 reporting exactly on the WHPA or performance line.

24 I wanted to see if I could connect a couple of
25 dots and create a really low-cost solution. I've

1 noticed that Eric, and Evelyn and I, and the lady from
2 IBEW have sort of been bouncing around on workforce
3 issues.

4 On page 50, and this is not what I expected to
5 be talking about today. On page 50, again, there's two
6 really important things going on. There's an
7 identification of certifications and then there is the
8 problem statement.

9 "If the value and meaning of these
10 certifications is not clear, customers will likely
11 select contractors based on cost alone."

12 And I appreciate the way the rest of the section
13 is worded because it acknowledges that these things have
14 to be worth something.

15 So, apprenticeship ought to be worth something.
16 Journeyman status ought to be worth something. NATE
17 certification ought to be worth something. UA Star
18 certification ought to mean something.

19 So, in order to like put anybody on one page,
20 and when I've made the suggestion in committee meetings
21 the certifying bodies don't like it, so I will disclose
22 that.

23 I think we should be thinking in terms of
24 prestigious, hard-to-earn credentials.

25 So, journeyman status, you know, in the Sheet

1 Metal Workers Union is difficult. You know, to become a
2 journeyman pipefitter is difficult. It's hard to earn
3 and I believe it's prestigious.

4 And I believe that NATE certification, which the
5 Sheet Metal Workers support, is a prestigious
6 certification.

7 So, the gentleman who called in earlier, and I'm
8 sorry I didn't hear his name, who suggested that we
9 should get them all approved, that makes very, very good
10 sense.

11 We get them all approved. We speak in terms of
12 prestigious because now we're thinking about the right
13 way about the message that's going to go to the
14 customers and the connection between those credentials
15 and quality, and energy savings, we achieve all of that.

16 But we have a system in place. We have
17 certifying bodies. There is already a market for
18 certification. So all we need to do is help create the
19 demand and let the market sort out which certifications
20 or credentials which is the better term, prevail.
21 Thanks.

22 MR. ASHUCKIAN: Thank you.

23 MS. GOODHILL ROSEN: Gina Goodhill Rosen, Global
24 Green.

25 The Action Plan, basically when it talks about

1 possible mandatory measures says that the CEC is going
2 to be evaluating and making a decision about if
3 mandatory measures are needed.

4 But I'm still unclear what's going to be
5 evaluated, what the time frame is for that evaluation
6 period and exactly what will cause them to decide that
7 mandatory measures are necessary. So, clarifying that
8 would be fantastic.

9 But in addition to that, I mean I think that
10 it -- I know we never want to assume anything, but just
11 based off of past actions, and where we are versus where
12 we need to be, it seems unlikely that we're really going
13 to meet any critical mass without mandatory, without
14 some sort of mandatory provisions.

15 And so I would encourage the Commission to at
16 least start the process of having another workshop on
17 that sooner rather than later.

18 Because if we don't get there until 2015, I
19 think we're really going to be behind in reaching a
20 critical mass.

21 And then I had a second comment but I feel like
22 you want to say something.

23 MS. BROOK: Well, I just wanted to -- I agree
24 with you. It's sort of been bothering me that -- I
25 don't think it was our intent, but the language sort of

1 seems like it's all serial.

2 MS. GOODHILL ROSEN: Right.

3 MS. BROOK: Like phase three won't happen until
4 phase two is complete, right. And I certainly, at least
5 for some of the mandatory proposals I don't feel like
6 that's what we meant.

7 So, I think I agree, we need to clarify that.

8 COMMISSIONER MC ALLISTER: Yeah, so and I'll
9 just second that. That the phasing, I think, is a
10 little bit of an artifact from sort of we decided that
11 ARRA was phase one and then we sort of were looking for
12 ways to structure this thing.

13 And I think the way it comes across, actually,
14 doesn't reflect the intent.

15 So, really, the mandatory measures is really --
16 the fact that it's relatively vague in there is just an
17 acknowledgement that we know that that's a very large,
18 multi-stakeholder kind of discussion and that there are
19 sensitivities there.

20 MS. GOODHILL ROSEN: Right.

21 COMMISSIONER MC ALLISTER: But, you know,
22 disclosure, those conversations about disclosure and
23 kind of what that could look like in the California
24 context, and building on what's happening in other
25 states, and that conversation can happen, can begin now.

1 And so, you know, those are grouped right now in
2 a mandatory section and sort of the structure of the
3 document implies that that's really phase three, but
4 that's not really the case. And I think we need to
5 reorient the document to get rid of that impression.

6 But I do think that, you know, we're getting a
7 lot of -- in the scoping report comment process, and
8 workshop process, and this one this week with the Draft
9 Action Plan, we're definitely getting a wide variety of
10 opinions about the sort of mandatory installations, and
11 the trigger points, and all that kind of stuff.

12 And, you know, we ought to do it faster, or
13 slower, or not do it, you know, that kind of stuff. So,
14 that is a pretty broadly contested, I think, stakeholder
15 discussion that needs to happen. And absolutely, we
16 want to show leadership there.

17 Part of my -- what I would really like to see,
18 and it's just mobilizing the resources to get it done
19 has been a little challenging, is some analytical
20 underpinning for the actual goals that we're going to be
21 looking for, for 758.

22 And so once we figure out what -- and we're
23 going to do that, but once we figure out looking at the
24 market, and the sort of projections of uptake, and
25 compare those to the policy goals and the sort of long-

1 term needs of the State as far as results, then we're
2 going to get a sense of what the gaps actually are.

3 And that's going to help inform when and what.
4 You know, when we move towards having that mandatory
5 discussion and what it actually includes.

6 But it's hard to really kind of get ahead of
7 that discussion without doing the analytics and kind of
8 getting it, you know, based on the actual marketplace
9 that we have.

10 So, anyway, I'm not trying to demurrer here, I'm
11 just sort of telling you the reality of like, okay, we
12 know that's missing in there. It would really be nice
13 to have some solid goals that we could basically agree
14 on and then move from there with respect to moving all
15 of the levers we potentially have in our disposal, of
16 which mandatory upgrades is one, or a group.

17 So, anyway, that's kind of the vision and the
18 document may or may not sort of reflect that right now,
19 but it should.

20 MS. GOODHILL ROSEN: Is that something that's
21 being done internally right now, figuring out those
22 analytics?

23 COMMISSIONER MC ALLISTER: Well, we're working
24 with the PUC on it, really, trying to get a sense for
25 what the realistic impact of the program suite, as it is

1 likely to evolve forward, will actually get.

2 Kind of in that voluntary realm with the utility
3 programs and, you know, with codes and standards and all
4 that on our side, and trying to figure out, okay, if we
5 just maxed -- if we put the pedal to the metal on all we
6 could on the voluntary side where is that, where' the
7 envelope?

8 And then is there still going to be a gap with
9 our long-term policy goals, and knowing how big and what
10 that looks like is really critical for then moving into
11 the discussions about, okay, well, let's lay it out.
12 What do we have to do to really get there?

13 You know, so I want to do this with eyes open
14 and like not do it in any sort of stealth way, but
15 acknowledge that it's a path we have to walk and we're
16 starting at point A and we've got to get to point B.

17 So, there's no way to -- you know, we don't have
18 a time machine that's just going to get us there, right.

19 MS. GOODHILL ROSEN: Right.

20 COMMISSIONER MC ALLISTER: So, anyway, I
21 think -- but again, you know, I'll just reiterate I
22 think there's a lot of really positive movement in the
23 marketplace. There's a lot of great technologies. I
24 mean this discussion today has highlighted the fact
25 there are knowledgeable people who understand the

1 challenge and have some solutions to it.

2 So, I'm really heartened, you know, by this
3 whole conversation and it's just really vital to keep it
4 moving forward and evolving.

5 MS. GOODHILL ROSEN: Yeah.

6 MR. ASHUCKIAN: And I was going to add that I
7 think the comments we've received all of this week kind
8 of made us realize that there are definite actions that
9 we can take, that are considered mandatory that aren't,
10 you know, that don't have to follow a voluntary
11 development process, that there are things that are
12 not -- that are already developed well enough so that we
13 can start with those.

14 Again, as Andrew said, you know, we are often
15 very -- well, I'll just say gun shy to come out with
16 saying we're going to mandate that you upgrade your
17 buildings because, you know, we think it's a good thing.

18 The opposition to that coming out right away
19 would be just like we're not ready for that. And so
20 that's why we wanted to characterize it as we're not
21 going to do that level of mandate until the market is
22 ready for it, and it's kind of gotten that market push.

23 MS. GOODHILL ROSEN: Right.

24 MR. ASHUCKIAN: But there are many things that
25 we can do that are "mandatory" that would require

1 regulation, that aren't to that level of requiring full,
2 comprehensive retrofits, for example.

3 MS. GOODHILL ROSEN: And on the note that
4 Commissioner McAllister was just making about all of the
5 knowledge that's in the room, on that note I also really
6 liked and would encourage you to go forward with the
7 idea of an advisory committee. I think that's what it
8 was called in the plan.

9 Because I think there is a lot of knowledge
10 that's out there, across the State, and it also goes
11 with the idea of transparency and openness that I am
12 hoping to really see continue in this sense. I think
13 that's an idea that should definitely be moved forward.

14 MR. ASHUCKIAN: Thank you.

15 MR. REGNIER: And I think it should be noted
16 that data comes ahead of anything else in the report.
17 You know, we do -- we really do need to be able to make
18 a good quantitative case for everything that we do that
19 is mandatory, and we're making the effort to make sure
20 that we can build that in the right direction.

21 MR. BUCK: Just a real general, kind of high-
22 level question. I know there's sort of an elephant in
23 the room.

24 MR. ASHUCKIAN: Who are you?

25 (Laughter)

1 MR. BUCK: Oh, sorry. I'm Charlie Buck,
2 California Center for Sustainable Energy, my bad.

3 So, you know, there's kind of an elephant in the
4 room which is funding, right. I mean the Action Plan
5 does call out looking, and comments for like incremental
6 sources of funding. We all know about cost-
7 effectiveness constraints at the CPUC with the IOU
8 programs.

9 And, you know, in particular we talk about
10 getting these retrofits done in the residential market.
11 It kind of seems like there's this gap between the --
12 so, there's the IOU programs, largely, the CEC has a lot
13 of policy levers, particularly in terms of mandating
14 things, regulations, codes and standards, et cetera.

15 But there's quite a hefty gap in between what
16 ratepayer funding can be used for, or cost-
17 effectiveness-wise and everything, and there's this
18 chasm between where that ends and where codes and
19 standards really begins.

20 And I'm just sort of curious if you can shed any
21 light on sort of the conversations going on between the
22 CEC and the CPUC on how to sort of coordinate programs.
23 I'm sure there's a lot of looking towards like post-
24 2014, and that sort of process. I'm sure there's a lot
25 on everybody's minds.

1 But if you could shed light on any of that, it
2 would be interesting.

3 COMMISSIONER MC ALLISTER: Yeah, I mean I'll
4 just say that's a great question. You know, I'm --
5 there aren't any hidden pots of funding anywhere.
6 There's no rainbow with a pot of gold at the end of it
7 that we can go tap into. You know, I'm sorry, sorry for
8 that message.

9 But, you know, I think Simon will have a much
10 more subtle view of sort of what's potentially possible
11 over at the PUC and sort of where that tends to be
12 going, and what the conversations are there.

13 I know between us we're certainly -- the two
14 Commissions are -- part of this whole effort is to avoid
15 duplication and make sure that the programs are
16 streamlined.

17 And, you know, the Prop 39, for example, is
18 under very initial development so there's really no
19 specific guidance, yet. The budget just got signed
20 yesterday.

21 But for example, you know, sort of coordinating
22 the efforts across programs to try to make sure that
23 what's happening with one bucket is not being done also
24 with another bucket, say the ratepayer funds.

25 And so we're just trying to make sure that we

1 know sort of across the board, across agencies what's
2 going on so that we can optimize.

3 There also, I think, is pretty clearly going to
4 have to be -- you know, if we do our jobs and highlight
5 the right issues, and feasible, reasonable solutions to
6 those issues, then I think we ought to be able to expect
7 industry to kind of come together and say, okay, well,
8 how are we collectively going to solve this?

9 And maybe some of the money -- you know, maybe
10 some of the resources come -- you know, local
11 governments are bootstrapped as well, right. Nobody
12 really has a lot of resources.

13 But I think there is Federal interest in what
14 we're doing, absolutely.

15 You know, there are -- I mean I think we're
16 going to have to have creative ways to solve some of
17 these problems.

18 Yeah, so I'll just leave it there for now. But
19 I think, you know, the financing obviously is something
20 that people coming back to. It's like, oh, if you could
21 roll some of these costs into financing and had it
22 really accessible, then maybe that's a solution to some
23 of them.

24 But fundamentally, you know, we have to get the
25 transaction costs down so that it's just easier for

1 everybody to do.

2 I don't think anybody expects not to pay for,
3 you know, the majority of a project. Like if the
4 project -- that's the thing about energy efficiency, it
5 has so much upside that, you know, lifecycle cost-wise,
6 you know, these projects they work.

7 There's a lot of upside to them. For the
8 customer that's in the pocketbook and it goes into the
9 economy and it's just, you know, lies there.

10 But it's getting over these initial barriers,
11 and the capital barriers, and the other transaction
12 costs that really kind of needs working through.

13 So, you know, I think -- I'm under no illusions
14 that it's not -- that it's going to be challenging, for
15 sure.

16 MR. BAKER: Yeah, so I would just complement a
17 few of Commissioner McAllister's words and just say
18 that, as he said, we have been looking at this issue of
19 doing some quantitative analysis with the tools that we
20 have now.

21 For example, the PUC is now working on its Goal
22 Study, it's potential study for the utility efforts, and
23 trying to kind of map what we sort of reasonably predict
24 might be available in terms of total dollars, and where
25 the potential is, and so forth, from ratepayer dollars.

1 And kind of compare that to, you know, what we
2 think those stretch goals are that we need to get to,
3 and other sources of funding, and so forth, and get a
4 high level kind of characterization of what the gap is.
5 I think it starts there.

6 And then, once this turns to the PUC again, just
7 speaking for the footprint that the PUC is involved
8 with, and I'll reiterate, this is a statewide program.

9 But for the investor-owned utilities -- you
10 know, I think the Commission, the PUC has challenged the
11 utilities to look for ever more efficient ways to
12 deliver energy efficiency through squeezing out
13 administrative costs, squeezing out soft costs, and
14 being more innovative in how they deliver their
15 programs.

16 But that's a challenging task. It's a very
17 challenging task to be a program administrator.

18 And in some respects, the more complex a program
19 effort becomes the more you need training, the more you
20 need QAQC, the more you need to do outreach, all of
21 those things, you know, in effect they show up as soft
22 costs in the portfolio. And so it is going to be a
23 challenge.

24 My view is, and this is just speaking for
25 myself, that I think there's going to be a point at

1 which, you know, having looked at this sufficiently, I
2 think there's going to be a case to be made to go back
3 to the Legislature and say, hey, we put this plan
4 together. We've done everything that we can to identify
5 the most efficient ways to implement the plan. These
6 are the funding sources that we have available. This is
7 what we believe is getting done.

8 And, you know, see what they have to say about
9 that, you know.

10 And as Commissioner McAllister said at the
11 outset, you know, the intent is to be in very active
12 communication with the Legislature about this program,
13 providing annual updates, and so forth. So, there's
14 plenty of opportunity to be communicating back to the
15 Legislature about that issue and we'll see where that
16 goes.

17 CHAIRPERSON WEISENMILLER: Yeah, I was just
18 going to say I think the good news is that we're
19 certainly not in the same budgetary throes that we were,
20 say, four years ago, or three years ago.

21 But having said that there still is an awful lot
22 of pressure on all public servants to really make sure
23 that we are spending the ratepayer's or the taxpayer's
24 dollars wisely.

25 And so we're going to have to make a strong case

1 for any new expenditures in these areas.

2 COMMISSIONER MC ALLISTER: Yeah, and I think,
3 you know, the policy discussion is always a fluid
4 discussion. And I think if, you know, the -- I think
5 there are foundational things that we've tried to
6 outline in the no regrets area that are kind of good to
7 do no matter what.

8 They are, you know, getting -- understanding the
9 marketplace in its evolution, and having the information
10 available to do that. Encouraging businesses to be able
11 to do this on their own and be able to create a business
12 that actually has a value proposition, and that
13 consumers want gets you out of the whole sort of
14 incentive, utility program, you know, overhead kind of
15 nexus, right.

16 And so, you know, if we can make life easier for
17 contractors so that they have a business, and they don't
18 have to mess with filling out forms even better.

19 So, those are the kinds of approaches that if we
20 can sort of help the marketplace kind of get moving, and
21 easier permitting, lower-cost permitting, you know,
22 better code that's a little bit more easy to wrestle
23 with, right, greater awareness about the code, you know,
24 the value proposition from the customer's point of view.
25 If they get -- oh, there's a health and safety impact

1 with this and I really ought to get a permit, you know,
2 and it's not too hard, like that's the kind of future
3 that we ought to be trying to create.

4 So, I think, you know, when I put it that way
5 to, you know, folks in the Legislature and others who
6 are interested in this topic, and sort of make it -- so
7 there are other traditional types of programs, many of
8 them are highlighted in the voluntary section of the
9 report and, you know, new ones that are kind of in the
10 air are in the mandatory section.

11 You know, disclosure is something that is kind
12 of -- you know, I think a lot of people are looking to,
13 to facilitate marketplace knowledge as well. It's
14 working in many places.

15 You know, those will be further facilitated if
16 we can get some of these no regret strategies in place.

17 And so, you know, I don't think everything -- so
18 if some of those new regret strategies need an infusion
19 of money that can't come from ratepayers, then that's a
20 discussion that we have to have, you know, between
21 agencies, with the broader set of agencies, and with the
22 Legislature to say, hey, this is really a critical
23 resource for California. And there's all sorts of
24 upsides, other than energy. Code compliance is a good
25 things for many reasons, not just for energy.

1 And so that's kind of the -- you know, it's hard
2 to say exactly what that's going to look like. We're
3 fleshing it out. We're trying to make it real.

4 But there is a value proposition there that's
5 broader than just energy efficiency that I think we can
6 articulate well.

7 But the goal being maybe we don't need sort of
8 to throw, necessarily, traditional resources at some of
9 these problems, we can help the marketplace to it,
10 itself.

11 And in fact, to scale, I think that's kind of
12 what we have to do.

13 Anyway, a little bit theoretical, but I think
14 long-term that's kind of the way we need to approach it.

15 MR. BAKER: I was just going to stress one other
16 point, too, which I forgot to mention. So, the PUC has
17 clearly been pushing hard on moving towards more
18 financing strategies as a component of the utility-
19 funded effort.

20 And I think one of the things that we think that
21 has the potential to do is to bring in a lot of capital
22 into California, private capital to the extent that we
23 can leverage that and make the public dollar go further.

24 And so that's going to be a really key piece of
25 the strategy.

1 We don't -- we're not naive in thinking that
2 financing is going to be the silver bullet. It's going
3 to have to be accompanied by other things.

4 One thing that we are looking at, however, is
5 the extent to which financing and incentives could be,
6 perhaps -- funding for those two buckets could be,
7 perhaps, interchangeable. Ratchet up financing, ratchet
8 down incentives and see what the market has to bear.
9 And those might be other ways to free up funding within
10 the utility portfolio to focus in other areas, perhaps
11 addressing more of the transaction cost issues.

12 MR. ASHUCKIAN: Thank you.

13 We have Wayne Longdon on the web. Wayne?

14 MR. LONGDON: Hello, can you hear me now?

15 MR. ASHUCKIAN: Yeah.

16 MR. LONGDON: My apologies for the last time.
17 Is this getting there again?

18 My apologies for the last time, I thought
19 somebody was just going to answer my question.

20 MR. ASHUCKIAN: Yeah, we can hear you fine.

21 MR. LONGDON: I thought somebody was going to
22 answer my question I typed last time.

23 My name is Wayne Longdon. I'm n HVAC
24 professional. I also do training. I'm a HERS rater.
25 I've taught at SVSU, energy auditing.

1 I was part of the first PUC program to go out
2 and train contractors up and down the State.

3 And I'm getting a terrible echo, myself, here,
4 but I'll try.

5 My point is I've interfaced with the public
6 quite a bit in trying to get them to understand why I do
7 what I do.

8 And I fear the one thing that we forget is that
9 all of this stuff makes a lot of sense to all of us,
10 particularly in our own particular expertise.

11 But we're trying to reach homeowners and
12 building owners. And to them, I'm afraid, that mostly
13 what this looks like is government regulation and extra
14 cost to them.

15 I've taught at SVSU, like I said, and one of my
16 most effective tools was just to show the Rosenfeld
17 curve. And I think that really speaks volumes to people
18 about how we're not trying to regulate their lives,
19 we're actually trying to save energy, which directly
20 allows them to save money.

21 And I would just encourage you to try to spend
22 the money and time. I know a lot of your websites have
23 very useful information on them, if you are trained at
24 ferreting out information on websites, and/or you're so
25 interested that you're going to read this and this, and

1 then that and that.

2 And I would just try to encourage you to figure
3 out a way to have a website, in particular, with a very
4 simple name like homeownerenergyinfo.ca or something,
5 where you can have some very simple, easy to understand
6 information that perhaps your neighbor, who knows
7 nothing about what you do, or your mother-in-law, who
8 doesn't care what you do, where she could go and pretty
9 quickly come to a good understanding as to why a HERS
10 rating is important. Why energy efficiency is
11 important, not just to her but to the country, to
12 California.

13 Just some easy way where we can start educating
14 the public about why we are doing what we've devoted our
15 lives to do.

16 I've run into that consistently and constantly
17 for the last five years in trying to get that message to
18 people. And every professional that I run into even
19 says the same thing, is we spend an extraordinary amount
20 of time trying to educate people on our own dime,
21 because they really don't get it, yet.

22 We all get. And I will just try to encourage
23 you to try to think of a way to have a better, simpler,
24 easy-to-understand message and capability for the
25 general public's information. Thank you.

1 MR. ASHUCKIAN: Thank you.

2 Okay, comments, any more comments in the room?

3 Okay, well, I think that concludes the majority
4 of the work today.

5 I want to thank everybody for attending. I want
6 to reiterate the next steps. We would like to, again,
7 encourage everybody to provide written comments by July
8 12th and, again, we'll keep -- we'll post everything
9 online of what we -- both the transcript and the audio
10 of the workshop, as well as the presentations and
11 comments, as well.

12 Actually, would you like to have some closing
13 comments?

14 COMMISSIONER MC ALLISTER: Oh, sure, just
15 briefly.

16 So, I think I've probably talked enough today.
17 I promised everybody I wasn't going to talk as much as I
18 did the last two days, but I've failed miserably.

19 But I want to thank everybody for coming. I'm
20 really excited to have this kind of kickoff, really,
21 formally of the discussion around AB 758.

22 I know there's been quite a bit of anticipation
23 about, okay, when's the Commission going to put this
24 report out and, you know, we finally got it out.

25 And I think it's -- I'm really happy to see the

1 reception that it's getting.

2 And I really want to thank staff for all the
3 hard work, Christine, and Dave, and the team. And I
4 think also the Chair's office and my own advisors, Pat
5 and Hazel.

6 I want to just thank the team, you know, thank
7 the whole team here because I think everybody's worked
8 hard on this.

9 But it is just a start. And this is a big thing
10 we've got moving here and we've got to get this train
11 moving down the tracks.

12 And so, I think it's a -- you know, I certainly
13 relish the challenge, and I hope that you all do, too.
14 And we're going to try to keep the doors as open as we
15 can for communication going forward at each opportunity.

16 You know, in the immediate future, up to July
17 12th, you know, definitely put your thinking caps on and
18 give us your best shot on telling us what you think we
19 ought to do.

20 And you, give as specific of feedback as you can
21 on each of the initiatives, under each of the
22 strategies. I mean it will be very, very helpful.

23 Going forward I think the path is pretty clear
24 as far as how we're going to -- you know, we're going to
25 take a couple of months, get a final out. There are a

1 couple of options for workshops around the final, and
2 around specific issues, so we'll work those out
3 depending on what the comments come in on looking like.

4 And then move forward, adopt sometime this fall
5 the final Action Plan.

6 And then really continue to work with the PUC
7 and the other agencies to implement and really create as
8 many opportunities as we really need to, to involve you
9 and other stakeholders on the specific issues that we're
10 trying to solve.

11 So, I'm really -- you know, that's what I came
12 to the Commission to do. I'm really excited to be doing
13 it. And, really, I think it's a great opportunity.

14 California's in a -- all things considered and
15 just relative to what things might have been, we are in
16 a fantastic position to really do some great work here,
17 and certainly relative to what we were a couple of years
18 ago, as the Chair said.

19 So, I feel pretty fortunate to be here in this
20 situation, and I'm just excited to go into problem-
21 solving mode and grow this market, and make it happen.

22 So, thanks everybody. Oh, and I also wanted to
23 say, Simon had to step out, but express his appreciation
24 for you all being here as well, so I'll just put some
25 words in his mouth.

1 CHAIRPERSON WEISENMILLER: Yes. Again, I would
2 also like to thank everyone for being here today and for
3 the opportunity to listen to your reactions to the
4 report.

5 Certainly, did want to thank Commissioner
6 McAllister and his office, and certainly the staff for
7 their activities on this, for getting this to where we
8 are now.

9 Certainly, again, going forward we're looking
10 for your comments.

11 I think the thing to think about, too, is
12 certainly one of the joys of working with Daniel Yergin
13 on products is that Dan is very clear. Four things, you
14 know, he's not the sort of guy that's going to do the
15 20-point program; it's four.

16 You know, and under each of those items there
17 might be four. But again, four is the magic number.
18 So, if you could help us set priorities on stuff so that
19 the decision makers can actually get their arms around
20 stuff, and figure out what are the key things we're
21 trying to do, not just a grab bag of 20 or 30 actions.

22 So, again, thanks for being here. And this is
23 important and we will be moving forward on it.

24 MS. COLLOPY: And I'd just like to close the day
25 by thanking everyone for participating today, both in

1 the room and on the web.

2 And I'd like to give a big thank you to UCLA for
3 hosting us today.

4 (Applause)

5 MS. COLLOPY: So, thank you for participating
6 and we look forward to all of your comments.

7 MR. ASHUCKIAN: I'll just add that if anybody
8 has some extra time, on the way back from lunch we
9 walked through the Athletic Museum, which is right next
10 door. It's got some interesting exhibits there, all the
11 trophies that UCLA has won from the beginning of the
12 university, Heisman trophies, the NAACP trophies over
13 the years.

14 MS. COLLOPY: Thank you.

15 (Thereupon, the Workshop was adjourned at
16 3:11 p.m.)

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